The Journal
OF THE
Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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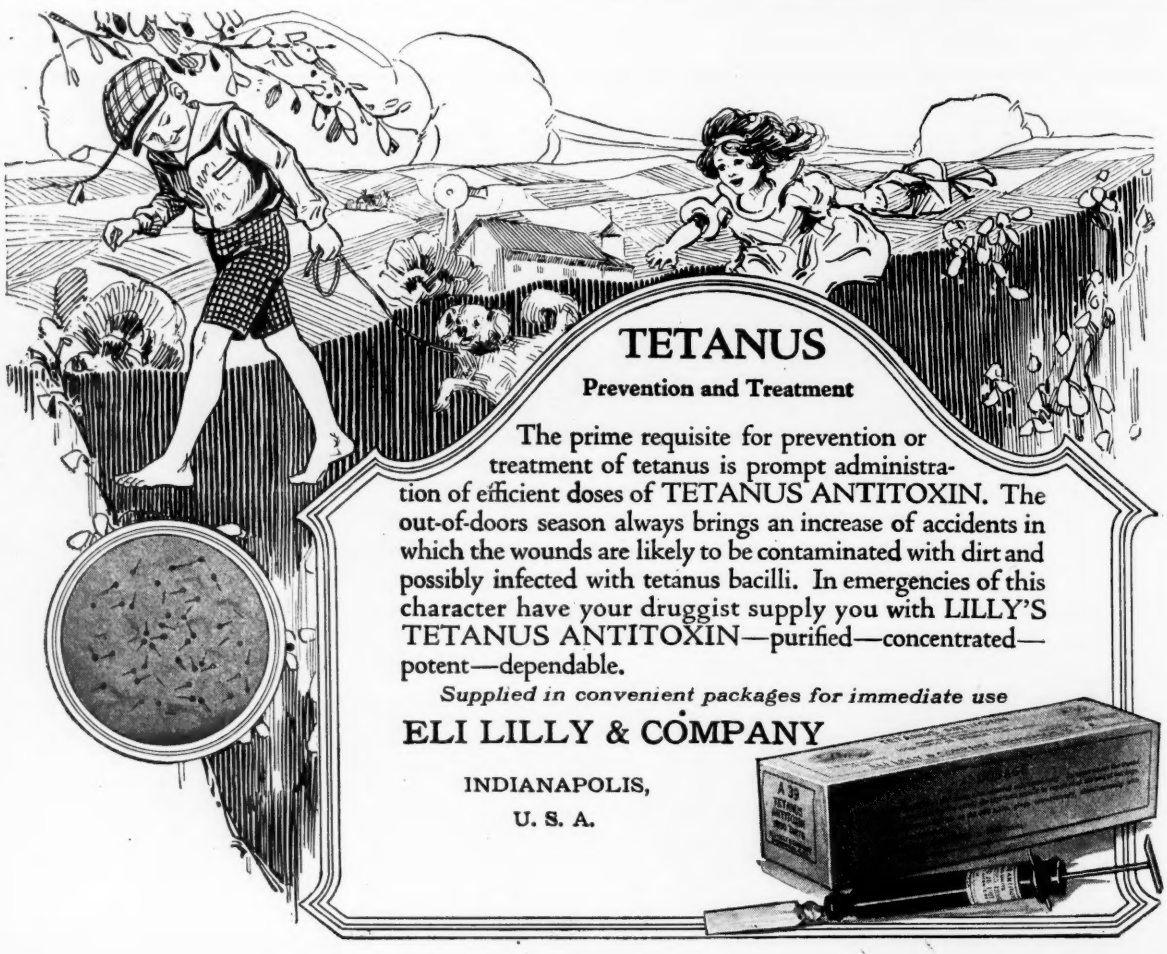

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Original Articles

PRESIDENT'S ANNUAL ADDRESS 1921. THE EXISTING RELATIONS BETWEEN THE MEDICAL PROFESSION AND AND THE PUBLIC AND THE FUTURE TENDENCY.*

ANGUS MC LEAN, M.D.
DETROIT, MICH.

For the past few years, clouds of uncertainty have been hovering over the regular medical profession. These clouds did not sweep down from mountain tops, but they arose from among the people: charitable institutions founded for preventive medicine: different labor organizations of the country: American association for labor legislation, Sage Foundation and members of our own profession, especially those members associated with public institutions and salaried members of the medical profession.

At our last annual meeting held in Kalamazoo, these clouds made their appearance in Michigan in a definite manner. When representatives of different societies told us that medicine would be regulated in the near future, as they dictated, these clouds of disturbance that befogged the public mind as to the virtue of scientific medicine, assisted by the propaganda for compulsory health insurance were waived a little further on. Later they rested over the dome of our capitol at Lansing during the entire time our legislature was in session (recently). Whether these clouds shall rest there until the next session or hang over some other state capitol, I do not know, but I am sure that they will rest again over the dome of our capitol at Lansing when the next biennial session meets. I must say it was not the general practitioner or the so-called family physician, who welcomed these threatening clouds to our country or State. These methods of disturbance were presented from several different angles, namely compulsory health insurance, State medicine, community health centers, bills regulating physicians and surgeons' fees, bills introduced by the Chiropractors, osteopaths, and Christian Scientists asking for equal rights with regular medicine, all aiming to repudiate the licensed physician's practice, aiming to regulate the amount of his income, and to put him in the same class with all cults before mentioned. This condition, I think, is well known to the members of the State Medical Society and to the profession of our State, and it may be stated that as a result of this, the medical profession now are in a state of "watchful apprehension," not knowing what is to happen in the next few years, not knowing where they are to be placed or what is to be their ultimate fate. They are watching with uneasy eyes the next move of the enemy.

It is true that scientific medicine and surgery have progressed more during the past thirty years than it has in any other period in the history of medicine. Yet, with all this scientific progress, with the raising of medical college standards and in every way making the profession more efficient as well as raising to a high degree the matriculation of students, who undertake the study of medicine and are to be the skilled physicians of the future; for several years the laity has received the benefit of this advanced science as well as the benevolence of a number of sanitary and scientific institutions throughout the counties and State, yet at no time in the history of medicine has the so-called drugless healers, anti therapeutists and different cults been more popular with the laity. Christian Science was never so strong as it is at the present time. Osteopathy holds a high place in the estimation of the public mind. The Chiropractors are now treating thousands of our citizens. Other cults are fast coming into existence. Why should this be so? It seems as though the regular profession must ask itself some questions. Is there something in the great art of medicine that we have neglected? We should find out why these cults appeal to so large a number of our citizens. Should medicine be a little broader and interest our people as do these manipulators, who appear to be so

*Delivered at 56th Annual Meeting Michigan State Medical Society held in Bay City, May 24-26, 1921.

satisfactory to people of certain imagination? I can see how the business man does not look with favor on strict medical ethics. The business man disposes of his wares by advertising. Large corporations and manufacturers advertise what they make, advertise them in the daily newspapers, advertise them in our different magazines and they will all note what percentage or what amount of their sales they make through their advertising.

The newspaperman and the journalist have an antipathy against the medical profession because they do not advertise. Their sympathies are with the advertising organizations. Their sympathies are with the osteopath, the Chiropractor, the healers of different types because these people are advertisers and their advertising helps to support the newspapers and journals. The question comes from this: Should we not make a phychological dissection of our Ethical methods also a dissection of the psychology of the public mind to discover why there is more sympathy shown towards these cults than to scientific medicine? If it is that medicine and the practice thereof has changed in the last twenty-five years; that it does not appeal to a large portion of the laity, let us enquire and find why.

The statement has been published in several journals and in many pamphlets that have been spread among the people at large: that at the present time forty million people or four tenths of the population of the United States are believers in drugless medicine. Who pays for the publishing of these pamphlets? Who pays for the thousands of dollars that are spent every month for printing and postage of all this literature? Is it the American Association for labor legislation or the Sage Foundation? Is the laity prejudiced against the regular medical profession and if so why are these people prejudiced? Is it that they believe only in what they read in these published articles? Do they believe that great drug and vaccine firms such as Parke, Davis and Company and other noted houses are producing worthless remedies or do they think scientific medicine has become a financial burden and they are looking for something more economical? The latter will bear close investigation.

The public have in their minds some sort of scale of remuneration that profesisonal men should receive and this is particularly so in the practice of medicine. From time immemorial they have looked upon the physician as a person, who had little desire to accumulate wealth, that his reward for services rendered was somewhat similar to that of another great profession, namely, that of the ministry, and that any great reward he was to receive for scientific work done, was to be only in part financial as a portion of that reward was to be laid up in heaven where they did not expect him to pay taxes.

At no time have physicians been supposed to acquire wealth out of the practice of medicine. Our specialists of late have raised their heads quite high and some of them have presented bills that have looked as though they put full commercial value upon their services. To regulate this, a bill was introduced into the legislature during the last session by representative Rowe of Hillsdale, Michigan. The bill is short and I will quote it in full:

A bill protecting the people of the State against unjust, unreasonable and unfair charges by physicians and surgeons and establishing a maximum schedule of fees in certain cases.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

"Section 1. No physician or surgeon in this State shall be entitled to or receive as payment for professional services rendered in any of the following cases a sum in excess of the amounts specified herein unless by prior agreement in writing.

Section 2. The following schedule of maximum charges shall prevail:

For surgical operation in cases of appendicitis —not to exceed the sum of fifty dollars.

For surgical operation in cases of goitre—not to exceed the sum of one hundred dollars.

For surgical operation in cases of cancer—not to exceed the sum of one hundred dollars.

For surgical operation in cases of external tumor—not to exceed the sum of fifty dollars.

For surgical operation in cases of internal tumor—not to exceed the sum of one hundred dollars.

For services in confinement cases not to exceed twenty dollars. The above fees shall include all necessary examinations and dressings in each case.

Section 3. All complaints of attempted extortion under the terms of this act shall be made to the Secretary of the State Board of Health, who shall thereupon, promptly advise said physician or surgeon of the terms of this act and the amount legally collectible for performing any of the services mentioned in section two of this act."

The statements in this bill show well what the public think our services are worth and the amounts the profession should receive in financial reward for work done.

There seems to be no doubt that medical and surgical men of ability require an income sufficient to live upon and to maintain their families on an equality with those of the average

business man. This point was well brought out at a meeting held at our own university at Ann Arbor, in January, 1921 when the profession of the State was invited to attend a gathering called by the President of the university so that he might explain to the profession, changes that he desired to make in the medical department of the university in reference to compensation for the medical faculty. In short, it amounted to this: That the University and Medical faculty had great respect for the indigent persons of our State: that they would receive the attention and medical skill needed and would be treated by the medical profession of Michigan faithfully, but that they would prefer to treat in the University hospital the so-called pay patients. In other words, they would prefer that the majority of patients sent to them for medical and surgical skill be of that class, who would be able to pay the university for medical services. When the president was asked, "Why this desire," he stated that at the present time the university did not pay a sufficient salary to the medical faculty to correspond with the high demands of living put upon these gentlemen at the present time. When asked what would become of the fees charged patients for services, he stated that this would be collected by the hospital and placed in a fund to be later distributed among the members of the medical faculty.

There was a statute enacted over two years ago and it is still on the statute books of this State, stating that it is illegal to divide fees among physicians and surgeons and that men, who receive such fees are liable to the penalty of our law. Probably this does not refer to dividing fees among specialists. I think when this law was enacted that they had in mind that the legality of the law applied only when the general practitioner received any reward for his services. As interpreted by the State hospital, specialists may divide fees in a way they see fit. I do not believe that it was the family physician or the general practitioner that had this law enacted.

In the early part of this year, Professor Herrick, of Chicago, published an article in the *Journal of the American Medical Association* relating somewhat to this question and wondered why the services of the mechanical therapeutist were so much more valuable than those of the scientific therapeutist. The general practitioner would treat a patient say for six months and decide that this patient required some sort of an operation. He took the patient to a specialist in some city and an operation would be performed. The operator would receive say two hundred dollars for thirty minutes of mechanical therapeutic work while the scientific therapeutist, who had used sera, vaccines, etc., would receive probably thirty or forty dollars for his six months work. This is one of the reasons why our young men all desire sooner or later to become mechanical therapeutists. They can do their work in a much shorter time and with greater financial reward. Even noted specialists do not agree as to the value of their own services. A short time ago, it was reported that two aurists of equal reputation treated patients of equal financial responsibility. The operations performed were both for mastoiditis. The patients recovered in an equal length of time. One aurist charged two thousand for the operation and the other charged ten thousand dollars for a like operation. These patients talked over the financial situation and wondered why the great difference.

The last few years has introduced what is known as group medicine. This is an association of specialists or other practitioners of high qualities, who associate themselves together in their practical and scientific work so that the patient may receive not only the skill of one man but of several. They may be associated with a hospital or independent. This group of physicians would accept a patient of any type. The patient would be examined by one or two of or all of them if necessary to arrive at a definite diagnosis. This would necessitate a full equipment for modern investigation. This appears to be ideal, but again we have the question of expense: a group of men of high special attainment would require more than a normal fee. It would probably cost from forty to fifty dollars for a complete examination. Where a more thorough examination or complete investigation is required it would cost approximately one hundred dollars. Then again arises the question as to what portion of our population can afford to pay these fees. When the patient has minor ills and where the diagnosis could be made readily a small charge would be made, however, an organization of this type must have fees sufficiently large to maintain themselves in their surroundings. This is being tried out and a final report on the success of group medicine will be made. At present these groups are all in the large centers. As time goes on they will probably move to the smaller places and to the country districts and it is there that their worth will be tried and their final success reported on. There are a number of people, who go to their family physician for economical reasons. A number of them still reserve the right to choose

their family doctor. He in turn will direct them to the specialist, or send them to a group of physicians whom he recommends. A few months ago the President of the United States chose his family physician to attend him while a resident of the White House. Although elected to the highest office in the land, he had not forgotten or neglected the family physician. He was appointed from private life in a small town and given the rank of brigadier general. If Dr. Sawyer is promoted as rapidly in the next few months as he has been in the past months, Brigadier General Sawyer will soon outrank General Pershig. It was the custom formerly for the surgeon general of the army or navy to select the physician for the President's family, but that precedent has been broken and the old family physician again outranks the specialist.

This brings us back again to the question of fees. Should we not have a committee on fees appointed from our own society, say a committee of seven, three of whom should be members of our council, two members from the surgical section and two members from the medical section of this society? This committee should take this matter under consideration and establish an outline of fees that would regulate like charges made for medical services and establish a maximum fee under certain conditions. Should not some standard of reward be set for scientific medicine and mechanical therapeutics? Should all the financial reward go to the mechanical therapeutist? We have medicine well divided by the different specialties, the chief among which are the dermatologist, neurologist, psychologist, cardiovascularist, orthopedist, pediatrist, gastroenterologist, proctologist, ophthalmologist, aurist, obstetrician, gynecologist, general surgeon, osteologist, roentgenologist, pathologist and lately they have added a new specialty, that of Lympho-mucomembranist. He treats the lymphatic system and mucous membranes, removes nasal spurs, tonsils, internal hemorrhoids, treats endometritis, cystitic, bronchitis, etc. If I were choosing a specialty to-day, I would select the last. Take away diseases and pathology covered by this group, and well we may ask what is left for the general practitioner or the family doctor. In a few years the rarest of all specialties will be the specialty of "General Practitioner." The out-door doctor was alluded to in a letter published in the *Journal of the Michigan State Medical Society,* this year, as being a "Bird Dog" for specialists. This phrase appears to be quite apropos to the situation. Will the medical student of the future (if any such there will be, for the outlook at present is not inviting) strive with energy to be a so-called "Bird Dog" or will he early aim at a specialty? My opinion is that he will choose the latter as the former is supposed to work for a minimum financial reward. When the specialist receives his reward, there is nothing left for the "Bird Dog." It must be remembered that over sixty per cent. of the people of the United States are under the treatment of a family physician.

HOSPITALS.

A report was read before the American conference on Medical Education and Hospitals at Chicago, March 19, 1921, on hospitals. Much has been said in recent years on the amount of bed space necessary for communities where hospitals are required and that hospitals were overcrowded. A special committee reported that there was over six thousand hospitals in the United States. They gave a list of hospitals in tabulated form: the number of hospitals with the bed capacity in each, in each State. We note for the State of Michigan that they give eighty-nine so-called general hospitals with a bed capacity of nine thousand two hundred and thirty with the number of beds not in use. The average number of beds in use of this nine thousand two hundred and thirty, are five thousand and ninety-five. This report is for the year 1920, which was considered a good year in business affairs and all hospitals should have been well filled during this period as that was a time when people, who desired to avail themselves of hospital services had sufficient money to gratify their wishes. The report for the United States shows that the average amount of bed capacity occupied throughout the United States is sixty-seven per cent. This then would show that these institutions have one-third of their bed space unoccupied at all times. It also shows that these hospitals are not well distributed for in our own State there are thirty-five counties that do not have a hospital. There are other counties that have several hospitals, which are situated in close proximity. Hospitals are founded or established to please a few people associated with a certain church or they are established by a person or group of persons, who wish to do something for charity. As a result, they are not conveniently placed for the benefit of the public. In some places there are more hospitals than are necessary, while in other places, as stated above, there are thirty-five counties without any hospital at all. It must be a great expense for any business to have one-third of a building un-

occupied. It would be a great expense if manufacturing or business institutions had one third of their factory or plant unoccupied although fully equipped. Hospitals are expensive institutions to run when they keep up to the demands placed on them. Many of them have gone beyond the income received from their endowment funds and are now showing a deficit in their annual reports. Would it not be better to have these hospitals managed or controlled by a hospital commission so that these hospitals might better serve the public? Their beds could then be occupied. As it is now, people sometimes wish to go to a certain hospital which is full because they desire a certain physician. All the better hospitals are now being standardized by the American College of Surgeons. There are in the United States four hundred and eighty-three standardized hospitals where internes can be taught and in these hospitals medical students may be given the last year of their medical course. If these hospitals are standardized, why should not the attending physician at one standardized hospital be allowed to send his patients to another standardized hospital; or why should he not be allowed to treat patients in any standardized hospital thereby adjusting the bed capacity and rendering equal services to all patients at much less expense to the public. It costs every institution that has one-third of its beds unoccupied a large amount of money and this shows in its annual deficit. If hospitals were more evenly distributed there would not be so many empty beds. Several hospitals should not be grouped in one county while thirty-five counties go without a hospital. This condition could be regulated by a hospital commission. The people of Michigan have been very generous in giving money to hospitals and have left large amounts in their wills to go to certain institutions. It would seem that this money should be handled so that it would be of the greatest use to the greatest number.

Recently closed hospitals have sprung up among us. A typical closed hospital allows patients to be treated only by those, who are appointed on the staff of that hospital. Of the same type of institution is one in which the staff are on a stated salary. The hospital collects all fees from the patients, medical, surgical and otherwise and pay the members of the staff a definite salary each month. Many times the patient does not know the name of the surgeon, who did the operation. This takes away all the personality and the humane side that formerly existed between patient and physician. The patient is simply known by a number, the physician also. This system would not exist if it were not that some members of the medical profession feel like selling their services at a low rate, say six dollars a day. We are informed that a large number of those acting in this capacity receive the above amount. Whether they believe that this is ethical or not is a question for the medical profession to decide. These institutions advertise these men as having great skill and being men of super ethics and also that they are graduates from the best medical college. This may be true but there should be one code of ethics in medicine for all schools. These physicians say that they are not responsible for the advertising that appears in the daily newspapers and that they are working only for their salary. If this type of work will bring the best to patient and physician, I am doubtful. He, who toils in any occupation for salary alone never reaches a high goal in the estimation of the public. But as the graduates of this school have always maintained that they are super human, there seems to be no code of Ethics to which they bow. They feel that they are licensed to ignore all Ethics and forget that medicine had an honorable and scientific career long before Johns Hopkins University was founded. They are more anxious to bring profit to their employer than to bring honor to medicine. If this system of contract medicine is endorsed, it will be but a short time until our large department stores have a medical department with two or three hired physicians, who will examine and treat all patients at a rate say of five dollars per head, the five dollars, of course going to the employer.

If all graduates were to sell their services to some hospital or institution at a minimum rate what would eventually become of the practice of medicine? It would then soon be reduced to a trade proposition with some wealthy person or group of presons receiving the reward and all that the great men in medicine have striven for in the past centuries would pass from the high plane it now holds, the honor of medicine would pass to groups or persons of high financial rank.

During the last legislature a bill was amended so as to allow a graduate of any chartered institution to practice in the State of Missouri. This means that a person with a diploma from any institution whatsoever would be allowed full privileges with the most skillful regular practitioner. This again shows that the people in general are willing to place on the same plane of equality and achievement those, who claim they have no science or knowledge of medicine but who believe in the mystery of

the hidden cults, which may be practiced in an ocult fashion. Again, we ask, why is this? Has medicine not lived up to its expectation? Has the medical profession of the State of Missouri not lived up to the public demand? I think they have. The answer is that propaganda for something new, something mysterious, for something in line with Grecian mythology has appealed strongly to the people of the State of Missouri. How is the patient, who does not reside near a medical center to be cared for? Are we to establish there small hospitals with a group of physicians and surgeons or shall this patient be transported to a medical center where he may get in touch with the skill of the specialist? The health center system would be ideal if we had a hospital in every county of the State supervised by efficient medical men.

If the State and county could be convinced that this would be a profitable investment the matter could be considered.

There seems to be a tendency on the part of the people of our State to restore and promote good health among the people, but the State and county first wish to be assured that this will eventually prove profitable to our State. Until that time they seem to be reticent to place any burden on the taxpayer greater than he is now paying. The person, who is in good health and has always been in good health does not see why he should pay for services rendered another person, who happens to be in ill health. He argues that ill health is often the fault of the person, who becomes diseased. To bring these ideal conditions about, which are supposed to be for the benefit of the public, it requires in all instances an act of our legislature endorsed by the chief executive of the State. The Michigan State Medical Society desires and wishes to do whatever is best for the health and happiness of the people of Michigan, but our State Society is opposed to any legislative changes that does not recognize the principles that they have adhered to for centuries the germ theory of disease and preventative medicine. They are firmly opposed to any cult or pathy which does not recognize these great principles in the cure of disease. They will make a great effort to prevent the legislature putting on our statute books any laws, that would be looked on as a disgrace to scientific medicine and a curse to the community. How is this to be prevented? There is only one organization, whose interests are such that they will fight for these high principles and that is the Michigan State Medical Society, and we as a society must form a strong organization to place before the people and the members of our legislature the plain facts and ulterior motive of non-scientific cults. I believe that we must not be too Ethical in placing our position before the people. Let us appeal to the court of public opinion, tell them what our aims are, what we have sacrificed in the past and are willing to sacrifice in the future. Physicians must inform the public in meetings, public gatherings and at every opportunity of the great benefit that regular medicine has been to the community. I would recommend strongly to this society that we appoint an active and enthusiastic legislative committee to consider these matters. I would recommend that each county society appoint one member on this legislative committee: that the president of the society appoint five members; that these committees elect their own secretary and also a treasurer and that they have full charge of all matters before our legislature and that all recommendations made by this committee must be followed out by the other members of the association. We had some experience during the last legislature in which a legislative committee were following a certain policy and we found that other members of our society had quietly endorsed some bill and when we appeared before the legislature we were informed that this bill had been endorsed by Doctor so and so. If we are to maintain our dignity we must establish a system of loyalty to each other. In the legislature that just adjourned these cults presented their bills to a health committee of five in the House, three of these five legislators were devoted to Christian Science. Christian Science does not recognize medicine. How could medicine have an equal chance when it had against it a committee of five, three of whom were utterly opposed to its principles. This was clearly shown when a bill was enacted giving Chiropractors a State Board of their own. They were to be allowed to treat contagious diseases and to attend confinement cases. This bill had no trouble in passing the House and the Senate afterwards pased this bill with a good majority. The reason that it is not upon our statute books to-day is because we had in the Senate a physician, who is a member of our own State Society, Senator O. G. Johnson, M.D. of Tuscola county. It is due to his efforts that this bill was reconsidered and returned to the Senate. I shall quote here his messages sent to our committee. (First) "The Chiropractic bill was reported out of committee to-day and passed by the House. I have suggested reconsideration. Have physicians and others send all telegrams possible to the Senators." This request was immediately complied with. A

committee meeting was hurriedly called and a night letter was sent to every county secretary in the State, also to the health officers of the State requesting them to object to the bill. They were asked to communicate at once with their Senators. Over two thousand telegrams were received by the Senate in forty-eight hours. The second message from Senator Johnson was as follows: "I succeeded with the aid of telegrams which were sent in to-day, in having the Chiropractic bill laid over until Monday, (this was Friday), when I hope to be able to have it amended in the form that will make it more acceptable. There is a bare possibility that I may succeed in killing the bill." He did kill the bill. Where would we have been to-day had not Doctor Johnson been in the State Senate? The friends of the bill appealed to the Governor requesting him to return the bill to the Senate. A third alarm was sent out. A few members of this society appeared before the Governor. They argued for several hours and it was finally decided that Senator Johnson had killed the bill. This proves one thing, and that is, that when the members of the State Society are called upon by special request to perform a certain act, they respond almost in unison. If we are properly organized and are in unison, we can do this again and again and if this feat is performed two or three times, I am doubtful whether there will be any bill introduced and passed like the bill that was passed in the State of Missouri. Right here, permit me to say, that for us to have a successful legislative committee, that committee must have a fund. Each county should raise so much and place it in the hands of the committee and ask no questions. The Chiropractic bill would not have met with such support had it not been well backed by its financial agents. Let us in the next legislature have our fund and be ready. I might say that the State legislative committee appointed by the State society consisted of three members, who did good work, but unfortunately they did not have adequate financial support.

The Legislative Committee of Wayne County organized early in December, raised a fund sufficient to meet the demands made upon it. Dr. J. B. Kennedy, of Detroit, was chairman of this committee and I trust that we shall have a chance to hear from him because he may say things that might not be wise to put in a report. Let us also at the same time hear from the hero of the last legislature, Senator O. G. Johnson of Tuscola county.

Should compulsory health insurance be put in force, we would probably be in the same condition as those countries that have it, namely, Great Britain, Austria and Germany. Great Britain is at the present time having a great deal of trouble. They have organized what is known as a medical trades union. The progress of medicine in these countries is now at a standstill. Let us have a committee from our own Society that will take this matter up and place it in a dignified form before the legislature. As to the Chiropractor and the other cults let them remain where they are for the present. They will be taken care of later. I trust sufficient interest has been made manifest by the members of this society during the past six months that our membership will increase and that every person who belongs to the Michigan State Medical Society will feel that he has done something for the science of Medicine. Let us aim to make our State Medical Journal the guiding spirit of our society. Let the county secretaries strive to have some one in his county have an article in the Journal at least once a year. Let it be looked upon as our source of information as well as to advance medical science. When we read the editorials and articles in our Journal let us feel that they are for the benefit and guidance of the members of the Michigan State Medical Society. Let us have a strong society, a large and united society and when we read in our daily papers that compulsory health insurance, state medicine and the different cults are going to do so and so in Michigan at the next legislature let us be ready to say that only such legislation that will bring honor to our State, uphold and recognize scientific medicine, and be for the benefit of the community, shall be permitted to be talked of in our legislative halls.

SOME OF THE MANIFESTATIONS OF THE DAMAGE FROM LABOR.

C. HOLLISTER JUDD, M.D.
DETROIT, MICH.

The great diversity and far-reaching morbidity resulting from structural or physiological harm occurring during labor, impresses one with an ever increasing regard for the slightest abnormality occurring at birth.

I will attempt to cover only a few of such conditions, viz., those which have been forced upon my attention by their unusual character and cases which have been frequently brought to my notice during various hospital services.

Birth trauma to the mother as to the child may show no untoward effects for months or even years. For example—bruising of the mas-

toid process with a forceps blade produces no result until some inter-current throat trouble passes bacteria to the devitalized area and then ear disease results.

A mother may develop severe nervous symptoms years after a pelvic ptosis in which the uterus and ovaries have been gradually packed down into the bottom of the pelvis; the ovaries, uterus and tubes being massed against an inflamed and dilated rectum. Such a condition is only appreciated by frequent handling during operation of the pelvic contents associated with a typical history and followed by a cure when the uterus and ovaries are lifted and held up thus relieving the congestion and pressure. Hirst reports the cure of a case of hystero-epilepsy by such a procedure.

The nervous system is the first to suffer from distant structural change and the pelvic organs should be replaced before the nervous system is irreparably damaged. The great reason why these operations fail is because the phychiatrist waits too long.

I have been much impressed by the number of women who have suffered from moderate psychosis following child-birth. The mild grades do not seem to be recognized and the women go on the downward path of increasing irritability often having more babies until they become a mental burden to themselves and a source of continual care and annoyance to husband and friends.

The cure of such a condition is, in the first place, its prevention. The obstetrician must be to some extent a pyschiatrist.

I will omit a discussion of prenatal care in this paper as I wish to emphasize the effect of even mild grades of birth trauma upon the nervous system of women of poor resistance. A large percentage of pregnant women have a secondary anaemia which is exceedingly bad for the brain tissue. My principal point is that what one woman can stand as regards physical pain or actual structural damage to her pelvic organs is very little indication as to what another can recuperate from. Following an apparently normal labor in women of the better class, highly educated, of marked self control who do not complain during labor, we frequently find unmistakable signs of severe damage to their mental make-up. In some of these women the self control which they exercise is an added strain to their higher centers and a severe mental break may come with little warning. In a greater number of similar women or those of a low vitality, a normal labor will have the effect of great mental strain leaving them after a time with their stamina and poise completely drained away—a mental rag as it were—complaining of everything from doctor to husband.

The lesson to be learned is that some women can not stand mentally, although they may physically, a practically normal child-birth. These mothers should have it impressed upon them that they are absolutely safe as many of them expect to die, and should be protected from the kind friends who delight in telling them the horrors of child birth.

During labor they must not be allowed to suffer long hours and their pains must be relieved. Nitrous Oxide gives wonderful results when administered by an expert. It is far superior to twilight sleep and when the gas is used, I see little to be desired.

Gas given with each contraction eliminates largely the physical pain and the brain instead of being keyed up by each succeeding pain, is dulled and calmed. Intelligent and kindly encouragement in the intervals of the contractions have marked effect on the patient and add greatly to her comfort. Here is a chance for real psychotherapy which is always highly appreciated by intelligent women.

Gas properly administered will not increase the time of labor. It is expensive and requires a special apparatus but people must be educated to pay the obstetrician properly for such care. The confinement fee should be raised and this can be done if you explain to the patient and husband (together) how much it means to both of them and to the child. It is money well spent and will save them hundreds of dollars later on. The biggest mistake a physician can make is to accept a confinement fee at so low a figure that he must of necessity neglect his patient.

If they will not pay you properly for your time, it is far better for the patient and for you that they employ a midwife who will not apply forceps or use pituitrin to simply hurry the labor for the attendant's sake. The mid wife can wait many hours for a few dollars. You can not do good work unless you are adequately paid. I am not urging you to charge poor people. They are a sociological problem and therefore a community responsibility. The doctors can not handle such a tremendous economic problem alone. We have always done our share of charity and the community must be educated to do theirs.

When you fear for the mother's nervous system, you must decide how much she can endure of fatigue, trauma, fear and anxiety for herself and baby and, after the birth, the effect upon the brain of mild grades of infection, the

possible lack of some of the horomones in the puerperium, focal infection, etc.

Among some of the rarer forms of pelvic trauma, I have noticed in a few cases a separating or dissecting injury of different parts of the pelvis floor, sometimes exposing nerve terminals. In one such case, the tissues near the crus clitoris and ischio-cavernosus muscles were separated. This wound began in the fascia lata and involved the inferior pudendal nerve passing to the deep layer of the triangular ligament. The injury had not been recognized and gave the patient much distress while sitting. The dissecting injury did not extend through the vulva and vagina nor was it a lacerating perineum in the usual meaning of that term. It was essentially a separation of the structures mentioned. Ater these various tissues were approximated, and the nerve endings covered, the distress departed. The condition is comparable to an exposed nerve in a tooth.

Other cases of separation of the vaginal layers have been noted; e.g., the mucous from the muscular (there being no submucus layer in the vagina) which perhaps is the cause of the separation. It would seem that almost any of the tissues of the pelvis might separate one from the other and a devitalization of the nerve result. That such a condition could cause disagreeable symptoms would be hard to disprove. The dropping of the urethral orifice after parturition is a separation of layers, something of the same character. The displacement of the trigonum in such a condition is said not to cause symptoms but one feels doubtful about such an assertion.

When one sees the absolute loss of vaginal rugae, in some cases shortening of the vagina without perineal lacerations, uterine ptoses in virgins, it is evident that there has been a separation in various anatomical layers, and yet no tear. When operating upon some of these cases, I have been much impressed with these facts—first, that the layers were separated and second, that further separation was so easy that to continue the dissection seemed most unwise. These anatomical changes are not easy to find and require a careful examination.

In one case, a separation of the mucous from the muscular layer of the vagina added to a slight laceration and infection, produced a blind fistula most difficult to repair. As the mucus and muscular wall posteriorly kept separating indefinitely, it was not feasible to cut a second opening to open the entire fistula as is usual. There was no end to the splitting apart of the mucus from the muscular layer. The condition was finally cured by injections of iodine and keeping the lower end of the fistula open.

A narrow outlet of the bony pelvis is a potent cause of injuries to those parts, because of interference with rotation of the head and shoulders.

About thirty cases of infection of the pelvic veins have impressed me with the frequency of mild grades of this condition. The picture is about as follows: From five to seven days after delivery, the temperature rises to 102-103 and the patient complains of pain in the calf of one leg. Palpation of the gastrocnemius muscle produces exquisite tenderness extending up the inner side of the leg along the internal saphenous vein and into the pelvis on the same side. The uterus itself is not tender but the inner wall of the true pelvis from the ilio-pectineal line to the white line and the pelvis fascia of inner wall of levaterani is very tender. In other words, all the veins of that side of the pelvis are tender upon pressure.

This is an immature milk leg or phlegmasis albadolens as described in the text books—easy to recognize if the veins pass on to suppuration and superficial rupture. My point is that suppuration and rupture are rare although this moderate infection is common. Why the pain is just produced in the distal ends of the internal saphenous vein instead of in the pelvis, is interesting. It is probably due to the proximity of the nerves of the skin to the distal venous channels. The veins in the pelvis have more room to become engorged so pain does not begin there. The ovarian veins have been removed for this condition though this seems hardly logical when the great venous channels in the pelvic wall are left untouched and must also be infected. To sum up these cases of infection of the pelvic veins:

1. They are common and we must palpate for them.

2. They are frequently unrecognized. This lack of recognition is partly due to the fact that they do not suppurate as in years past.

3. They are dangerous because of this lack of recognition as moving the leg about may cause embolism.

You must tell the patient's husband that the swelling of the leg may not go down for months or years or you may be blamed for the condition.

The relation of this infection to gonorrhea, I will not discuss tho in reviewing my cases, I have come to feel that such a relation does exist.

David Whitney Bldg.

THE PRE-TUBERCULOUS CHILD IN THE SCHOOLS.*

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It takes a considerable amount of courage for me to attempt to talk on problems of tuberculosis before this audience, and I might confess, here and now, before I have gone far enough for you to find it out for yourselves, that I do not qualify as an expert. We have, however, this much in common; both you and I are interested in tuberculosis prevention. You are interested in it as an important part of the study of tuberculosis, and I as an important part of the general problem of the prevention of disease in children.

Strictly and scientifically speaking, we might class most school children as pre-tuberculous, if this term means to you, as it does to me, potentially tuberculous, or in other words, infected with and harboring the bacillus of Koch, and under the proper circumstances, a possible sufferer from the disease tuberculosis. I think that it is the concensus of opinion, among those qualified to hold an opinion, that from 50 to 100 per cent. of our children have a tuberculous infection. Doubtless we will all agree, however, and rightly so, that there are certain children or groups of children, who are especially prone to develop clinical tuberculosis, and it is our purpose in the schools, first to find these children and then to give them such special care and their parents such special instructions as shall help to prevent the development of active disease, or help to secure the arrest of active tuberculous lesions already present. We have then a heterogenous group of children, whom we call for practical purposes, pre-tuberculous. Included among these I place those children with prolonged and intimate exposure to open tuberculosis, the markedly undernourished; the so-called "delicate child," particularly those with what the old clinician was used to call, "the tubercular diathesis," and I might say parenthetically that this is a fairly well defined class with almost a familiar resemblance among its members.

We must also suspect the child with prolonged convalescence from the acute contagious diseases, particularly measles, whooping cough and influenza; certain children with diseased tonsils, especially those with sub-acute and chronic tonsillar infections; the children with chronic and well marked enlargement of the anterior cervical glands, independent of evident disease of the throat and mouth.

Doubtless many will disagree with the inclusion of a class of tonsil cases among the pre-tuberculous, but Canfield and Warthin have shown with what remarkable frequency tonsils removed in the University Hospital have had present active lesions of tuberculosis. I have the feeling that the tonsil is the one most important and frequent avenue of tuberculous infection, although I have no positive evidence to this effect.

In addition to these children we have those who have definite clinical evidence of tuberculosis, the arrested or quiescent cases of bone and lung infection, those with phlyctenular conjunctivitis which May has proven to be practically always tuberculous, and those children who have what was once a clinical entity but now is losing in popularity, namely scrofuladerma.

Having thus loosely classified the objects of our attention, how can we help them, how can we keep them in school and at the same time decrease the possibility of eventual tuberculous disease. We say "by increasing the resistance" (whatever that may mean) and by improving their general physical condition. The first step is in flagging the attention of the parents. It is a surprising thing to me, with what calm complacence parents will regard their children's physical imperfections, if only they are of gradual enough development. They either overlook completely or accept as a dispensation of divine providence the fact that their child is definitely and decidedly below normal physically.

Having approached the parents the next thing is to secure a complete and thorough physical examination of the child and a detailed and exhaustive inquiry into his mode of life, and of these two it is hard to say which is the more important. It is my experience that poor hygiene as a cause of poor health is more frequent than definite evidence of any disease condition, in a ratio of at least two to one. Poverty as a cause of undernourishment is relatively unimportant, in fact the condition is at least as common among the children of the well-to-do as among those of the indigent. Definite evidence of tuberculous infection is among the more infrequent findings in the examination of these children, although in this connection we must remember the extreme difficulty in the diagnosis of early lesions in children. As a bit of corroborative evidence there is the von Pirquet test. I regard this as very important and have more confidence in it than most people seem to have. As a matter of fact I find, among school children up to twelve or fourteen years, that a well marked von Pirquet is unusual in those who have no other evidence of clinical tuberculosis;

*Read before the Michigan Trudeau Society, Flint, Mich., April 16, 1921.

except when there is definite history of exposure to the disease.

The physical examination having been made and the data secured as to the child's home life, we have next to secure the co-operation of the parent in carrying out the treatment. Curiously enough, it is much easier to get this co-operation when there is definite pathology present. A parent will more readily agree to a surgical operation, say for the removal of tonsils, than he will to alter his child's habits of eating or sleeping. After three years of this kind of work, I have only the greatest sympathy for the physician, who failing a definite diagnosis, will say that the patient is threatened with tuberculosis, or some other disease. People want a definite name for their troubles.

In the care of these cases, our most important aids are the fresh air school room, and the nutrition class, which is essentially identical in plan without the expense of equipment.

The fresh air room occupies the same place in the care of the pre-tuberculous child that the sanatorium does in the care of clinical tuberculosis. It is primarily educational. It teaches by precept and practice, right living. To be sure it offers in addition, fresh air, lunches and rest periods, but these are of minor importance. It puts practical hygiene in the school curriculum in a way no other method seems able to achieve and makes it a live subject to the children. And once having reached the child we need no longer worry about the parent. His conversion follows automatically. It teaches the child that good health is worth while and arouses his interest in securing it for himself. It gives him a personal competitive interest in having his teeth fixed, his tonsils out, his errors of refraction corrected and weight up to normal.

A more recent development, which aims to accomplish the same end, is The Modern Health Crusade. If the National Anti-Tuberculosis Society had accomplished nothing else, its existence would still have been justified. The Modern Health Crusade makes observance of the common rules of hygiene a game and a habit.

There is no question but what these things secure concrete results and are well worth while. The only difficulty is in making people in general appreciate not only the benefit to the individual but also the fact that it is a good investment financially. The children in our fresh air rooms gain in weight from three to six times as rapidly as the average school child. They are more free from acute infections of all kinds, have better attendance records, and get a basic training in hygiene that is of inestimable value. Parents of children who have been in a fresh air room learn to appreciate the value of them. Almost without exception when a child has done well and has been returned to his regular class room, a father or mother will come with the plea to put the child back in the fresh air room so that he may remain well. And they ask the very apt question, "If this is good for delicate children why isn't it good for well children? Why don't we have it for every child?"

Health work pays not only in the fresh air rooms but in the whole school system. In one of our schools with probably 90 per cent. of its attendance drawn from the children of foreign laborers, retardation has declined 50 per cent. in the last three years, during which time the Health Department and the Board of Education have been actively pushing medical and dental and nursing work in all the schools. One class in this school, in which every child has had all defects corrected has gained a half grade this year and has a record of but one child absent on account of ill-health this year. It PAYS.

CHEMICAL BLOOD ANALYSIS AS A DIAGNOSTIC AID.*

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This article is a resume of the results obtained from recent work done on chemical examination of the blood. It is intended to include a few words of friendly advice and suggestion from the laboratory to the doctor and in a measure to condense much that has been written on this subject in order that the laboratory may be of greater service to the clinician and co-operate with him more thoroughly. Accurate data on the chemical composition of the blood have been obtained through observation and experimentation in the hands of such men as Folin, Benedict, Van Slyke, and Meyers during the last few years. Therefore the literature on this subject has been quite meager and only very recently has the valuable work been published. For this reason the average busy physician and surgeon has not been fortunate enough to find literature accessible or the time available to acquaint himself with this valuable branch of laboratory work. Laboratory workers are constantly being called upon to state a few fundamental principles of blood chemistry We in the laboratory are very glad to discuss this important and interesting subject with as

*From the Jefferson Clinic, Detroit, Michigan.

many doctors as possible in order to encourage a much more extensive use of these examinations, and only regret that we are not able to answer more questions and talk more extensively with the profession. The limitations of individual conversation make a few written words advisable.

We no longer look upon the chemical examination of the blood as belonging to experimental physiological chemistry, but as something that has an everyday practical application in any clinical laboratory. The introduction of micro-chemical methods by Folin and the perfection of the colorimeter has made possible the use of blood chemical analyses as a bedside aid to diagnosis. Blood chemistry fills a big gap left open by the older methods of laboratory examinations such as cytology, bacteriology, and serology. It gives much additional information to, and appears equally, if not more valuable than any other branch of laboratory work. We have been accustomed to depend greatly upon urinary findings and while we do not wish to replace urinalyses or any other branch of laboratory work with blood chemistry, yet we can safely say that results obtained from chemical estimation of the blood content are both of greater service and give more hitherto unobtainable information than the most extensive qualitative and quantitative urine chemistry.

These two important analyses should go hand in hand. The urine tells us something about kidney function and about pathological changes in the products excreted. The blood chemical analysis on the other hand tells us what products and ingredients are retained, detects changes in the blood composition exceedingly early, and is a real index to metabolic changes and renal function. It is due to the fact that blood chemistry gives us results that are in no other way obtainable that the work promises to be of the greatest aid in diagnosis, prognosis, and differential diagnosis. Now in order to illustrate some of the applications of this work a few specific instances can be cited, and it is probably most convenient to consider the important constituents of the blood, one by one.

We will first turn attention to sugar. Glucose occurs normally in the blood in amounts varying from .08 to .12 per cent. The renal threshold for sugar elimination is not constant but it is usually around .17 per cent. Excessive carbohydrate feeding ordinarily produces glycosuria but does not materially raise the blood sugar above the threshold point. Nephritis oten raises the threshold above .2 per cent. and occasionally, but rarely, the threshold is lowered in nephritis. In mild cases of diabetes the threshold is normal but in more advanced cases it is usually raised. In renal diabetes we usually find it lowered. The threshold varies greatly and for that reason blood sugar determinations are very important because many diabetics show a high degree of hyperglycemia and no glycosuria. So a negative finding of sugar in urine means little. On the other hand a positive urinary sugar finding does not convey a large amount of intelligence because it gives no accurate information regarding the permeability of the kidney, which is such an important factor. For illustration we will assume a positive test for sugar in the urine. We are simply told that a condition of glycosuria exists. It does not mean, however, that a condition of hyperglycemia also exists because in renal diabetes there is sugar present in the urine while the blood sugar is practically normal and in some cases, as mentioned before, the threshold point of sugar excretion is below the normal level. This is an excellent example of the possibility of making a differential diagnosis by using both a blood and urine sugar test. Now we will assume a condition where the urinary sugar test is negative. Glycosuria is absent but the amount of sugar in the blood may be twice or three times normal. It is quite probable that many individuals are diabetic and still have no presence of sugar in the urine, because glucose may increase enormously in the blood and still not overflow into the urine. We are equally, if not more, concerned regarding a condition of hyperglycemia as glycosuria and a blood sugar determination together with a urine examination will reveal fully what we should know. The blood sugar estimation can be made equally as well on blood cells, blood plasma, or whole blood, as the glucose content is practically the same in each.

In connection with the treatment of diabetics the development of acidosis is always a possibility. Acidosis is a term which receives wide misapplication, at least from a laboratory point of view, especially in surgical cases. Acidosis does not exist merely when acetone appears in the urine. Normal blood plasma is capable of absorbing from 60 c.c to 70 c.c of CO_2 per 100 c.c. If this figure falls below 50 a condition of acidosis exists. The estimation of the CO_2 combining power of the blood is a comparitively simple procedure by the Van Slyke method. Acidosis may be produced by the ketosis of diabetes, the retention of acid phosphates by the kidneys, decrease in blood carbonates, or the decrease of CO_2 excretion by the lungs. The

common clinical procedure of giving sodium bicarbonate until the urine becomes alkaline is often quite inaccurate because bicarbonate retention by the kidneys would indicate a more severe acidosis than really exists. The value of determining the CO_2 combining power of the blood in connection with nephritis and infantile diarrhea is worthy of consideration. Ether anesthesia lowers the power of the blood to absorb CO_2. Acidosis does not mean that the blood ceases to be alkaline because life cannot continue if the blood is acid. When the alkalinity is first reduced, the ammonia is increased and comes to the rescue, and it is only when the ammonia is all used up that acidosis results. The presence of acetone, B-oxy-butyric acid, and diacetic acid in the urine usually means acidosis, but does not indicate the degree of acidosis, and does not mean that the blood is acid.

Undoubtedly the most valuable and most widely used branch of blood analysis is the determination of the non-protein or non-coagulable nitrogen compounds, which can be divided into the three most important constituents, namely, uric acid, urea, and creatinine. Non-protein nitrogen constitutes approximately 1 per cent. of the total nitrogen of the blood, yet recent investigation has dealt principally with this form of nitrogen and consequently we are at the present time more interested with these substances than with the protein nitrogen. Non-protein nitrogen is present in the blood normally to the extent of 25 to 30 mgs. per 100 c.c of blood. It is important to know whether or not the total non-protein nitrogen is increased but the knowledge which can be obtained regarding the three constituents above mentioned is even of greater value. Let us consider the relationship between these. Uric acid is very insoluble, only one part being soluble in 40 parts of cold water, and urates under the conditions as they exist in the body, are only one-tenth as soluble. Urea is more soluble and creatinine is very soluble. The ease with which the kidney eliminates these substances is directly proportional to their solubilities, which means that creatinine is the easiest for the kidneys to eliminate and uric acid the most difficult. In other words, when kidney function is first impaired there is an accumulation of uric acid in the blood. This is the first ingredient to be stored up when, for instance, the phenol-sulphonephthalein test shows a beginning of deficient elimination. This is explained by the fact that of all the blood constituents uric acid is the most difficult for the kidneys to get rid of and naturally when the function of the kidney is interfered with, the substance most difficult to eliminate will be the first to be retained. As the functional activity of the kidney is lessened, urea will next be stored up in the blood. Creatinine being the easiest for the kidneys to expel will be the last to be stored up.

Urea nitrogen is normally present in the blood in amounts varying from 12 to 15 mgs. per 100 c.c. Urea is formed as a waste product in the liver, coming from amino acids set free in digestion, which have first been converted to ammonia. It is, therefore, purely exogenous in origin. Uric acid is derived from purin, which is first changed to xanthin, and finally to uric acid. Its source is partly exogenous and partly endogenous. About one-half that occuring in the blood comes from purin bases present in food, and the other half from the body tissue glands. A purin-free diet lowers the blood uric acid but does not remove it. The uric acid content of the blood is normally from 1 to 3 mgs. per 100 c.c. Creatinine is purely endogenous, coming from muscle tissue. It is present normally in quantities ranging from 1 to 2.5 mgs. per 100 c.c.

The distribution of uric acid, urea, and creatinine in the blood and in the urine is entirely different because the kidneys normally concentrate creatinine 100 times, urea 80 times, and uric acid only 20 times. A change in the kidney permeability soon changes these figures. Urea nitrogen constitutes normally 50 per cent. or a little less of the total non-protein nitrogen of the blood but in pathological conditions this percentage is soon increased. It is important that we have it firmly in mind that the order of accumulation of the three most important non-protein nitrogen compounds in the blood is uric acid first, then urea, and creatinine last. In the early stages of a kidney deficiency we would expect an increase of uric acid in the blood. In the moderately advanced stages the uric acid and urea would both rise. In a far advanced case the uric acid, urea, and creatinine would all be present in amounts above normal.

Of course we are most interested in the clinical application of this work and a few examples can be briefly stated. Assume a beginning case of chronic interstitial nephritis. A urine examination is probably made but tells little. Albumin and casts may be present but this simply signifies in a vague way kidney disease which we must clearly distinguish from kidney function. We are seeking information about kidney function and metabolic processes and so we examine the blood. The ingredients will be retained or accumulated in their usual order:

first uric acid, next urea, and if the stage is reached, we will say, where uremia sets in, creatinine will probably be increased also. And in many such cases the urine findings remain normal throughout.

The increase of creatinine has undoubtedly the most clear cut clinical significance. A marked rise in creatinine should cause the gravest concern. Normally it seldom exceeds 2.5 mgs. per 100 c.c of blood. Figures above this should cause suspicion of kidney involvement. Amounts up to 5 mgs. indicate a serious condition, and 5 mgs. is taken by most workers as the prognostic fatal point in chronic cases. In practically every case of chronic interstitial nephritis in which the creatinine rises to or above 5 mgs. per 100 c.c. the outcome is fatal. It is difficult to find record of a case where the creatinine was found to be present in the blood to the extent of 5 mgs. per 100 c.c that death did not follow in a month or two after this concentration had been reached. In some acute conditions there might be frequent exceptions to this. It must be emphasized, however, that only a high creatinine content possesses an important prognostic value. A low creatine does not always mean a favorable prognosis, because death may be impending and still the creatine may not be higher than 3 or 4 mgs. per 100 c.c.

Uric acid is increased in gout in practically every case, which fact plays an important part in distinguishing between gout and arthritis, the uric acid remaining normal in the latter. In gout the urea and creatinine are about normal. Of course this blood picture is typical of an early chronic interstitial nephritis, but it must be remembered that all laboratory work is valuable only when correlated with the full clinical evidence. In parenchymatous nephritis the uric acid shows no noticeable increase, although the rise in blood chlorides is here marked. In lymphatic leukemia there is no appreciable change in urea and creatinine but the uric acid rises, the surplus being derived from endogenous sources. It is found in severe infections, especially pneumonia, that the non-protein nitrogen is increased and upon running the complete partition it is found that the rise is especially marked in uric acid. In early cases of lead and mercury poisoning there is a rise in uric acid. Later the increase is very marked in urea and creatinine as well, the urea having risen to more than 300 mgs. per 100 c.c in some cases.

Urea is increased in numerous conditions besides the terminal stages of chronic interstitial nephritis, the most common of which are bichloride of mercury poisoning, some cases of acute nephritis, malignancy, lead poisoning, pneumonia, intestinal obstruction, and many renal complications, a common example of which is that following scarlet fever.

Of course there is a close relationship between all the non-protein nitrogen compounds and it is rare that one is affected alone. A few drugs, notably atophan, increase the uric acid in the blood as does a diet rich in purines. Salicylates and cinchophen decrease the amount of uric acid in the blood and increase it in the urine. However, there is no distinct relationship between that in the blood and that in the urine.

It is often difficult to decide what determination will give the most information on a certain case and we urge that the complete non-protein nitrogen partition of the blood be run as it is the amount of each ingredient present and the relationship of one to another that reveals the most. As a routine method in our laboratory, when no special determination is ordered we observe the procedure of determining the total non-protein nitrogen first and if this value should rise above 35 mgs. per 100 c.c, the uric acid, urea, and creatinine are then determined, the reasoning being that if the total non-protein value remains normal, its constituents will not usually be increased. However, we do not wish to encourage the physician giving us this liberty to too great an extent because his greater familiarity with the case will enable him to choose the laboratory work to better advantage. The total non-protein nitrogen estimation in itself gives little detailed or specific information but it is often valuable as a short cut. Good judgment, however, is the best asset and should prevail. Here I would like to mention a common practice among some doctors that I would like to discourage, namely, that of ordering a urea nitrogen estimation when a general insight into the total non-protein nitrogen is desired. It is strongly suggested that the total non-protein estimation be used for this purpose as the last named test is more simple, more accurate, and the results more comprehensive. The urea determination could more advantageously be used in connection with that of uric acid and creatinine.

An extremely popular test and one for which much has been claimed in the past is the phenolsulphonephthalein test. The measurement of the speed with which a dye is eliminated by the kidneys is beginning to be looked upon, and probably justly so, as an overestimated aid in diagnosis. Helpful it is true, but giving little more insight into the function of the kidneys than the positive or negative findings of albu-

min or casts in the urine. It gives in a rough way a picture of kidney function but not with the fine accuracy which can be displayed by a careful chemical study of the blood. Frequent experiences with dye elimination where the phenolsulphonephthalein output is low with fairly good kidney function, and again where the output increases with decreasing efficiency, together with the knowledge that the test has only a transitory value, leads us to depend upon it less than formerly. We are striving to find out what the kidneys are or are not doing as well as to indicate the relationship between nitrogenous and carbohydrate metabolism. As an index to operative risks, certainly a more comprehensive study of the patient can be made by a blood chemical survey than by the older methods of urine examination. The application of blood chemistry in connection with surgery is unlimited. A more favorable prognosis of an operative case usually follows when the blood sugar, uric acid, urea, and creatinine are normal, and the increase of any one of these substances gives valuable information to the surgeon. Blood chemical examinations are more indicated in urological surgery than any other, especially since the preoperative examination and treatment of cases for prostatectomy are considered so important.

The numerous other constituents of the blood have not as yet received enough consideration to make them worth mentioning here. It is quite possible, however, that some of the ingredients of the blood which are now considered too unimportant to estimate, may some day furnish much hitherto untold information. It remains for future research work to determine much of the real value of blood chemistry.

For the complete analysis of the blood, about fifteen cubic centimeters of the blood should be drawn in the same manner as drawing blood for the Wassermann Test, and transferred to a tube containing about eight drops of a 20 per cent. solution of potassium or sodium oxalate for every 15 c.c o blood to defibrinate. More oxalate must not be used because some of the tests might be interfered with. The specimen should be taken before breakfast or at least four hours after the patient has eaten. Breakfast can usually be postponed until an hour at which it is convenient to draw the blood.

Blood chemistry is a new subject. The aver-

TABLE I.*

—URIC ACID, UREA NITROGEN AND CREATININ OF BLOOD IN INTERSTITIAL NEPHRITIS**

Date, 1915-16	Case	Age	Sex	Diagnosis	Condition	Mg per 100 C.c. of Blood			Phthalein 2 Hrs., per Cent.	Systolic Blood Pressure	Urine	
						Uric Acid	Urea N	Creatinin			Albumin	Casts
I												
9/17	H. L.	23	♂	Pulmonary tuberculosis	Unchanged	6.5	16	2.7	58	130	++	+
8/10	E. H.	41	♂	Pericarditis	Unchanged	5.6	13	2.1	45	150	—	—
10/12	F. D.	45	♂	Interstitial nephritis	Unchanged	5.5	12	2.5	37	185	—	+
3/ 6	B. D.	35	♀	Diffuse nephritis	Unchanged	9.6	19	2.4	45	175	+	+
II												
8/11	J. J.	65	♂	Early interstitial nephritis	Unchanged	9.5	25	2.5	13	185	+	+
7/21	D. S.	56	♂	Early interstitial nephritis	Unchanged	6.6	24	3.3	26	185	—	+
9/21	D. D.	52	♂	Early interstitial nephritis	Unchanged	8.7	20	3.6	20	100	+	+
8/ 3	C. M.	54	♂	Early interstitial nephritis	Unchanged	6.3	31	2.0	23	150	—	—
III												
1/ 6	L. P.	57	♂	Moderately severe chronic interstitial nephritis	Improved	8.0	80	4.8	0	240		
3/ 1						4.9	17	2.9	10	170	++	++
4/23	J. P.	34	♂	Moderately severe chronic diffuse nephritis	Improved	8.3	72	3.2	25	238		
5/21						5.3	21	1.9	43	145	+++	++
1/15	W. C.	49	♂	Moderately severe chronic diffuse nephritis	Improved	9.5	44	3.5	38	210		
1/28						2.5	19	1.9	52	180	++	++
IV												
4/11	E. C.	50	♀	Typical fatal case of chronic interstitial nephritis	Died	22.4	236	16.7	0	210	++	Pus
3/23	T. D.	34	♂	Typical fatal case of chronic interstitial nephritis	Died	15.0	240	20.5	2-3	225	++	+
1/25	S. H.	37	♂	Typical fatal case of chronic interstitial nephritis	Died	14.3	263	22.2	0	220	++	+
4/15	J. W.	34	♂	Typical fatal case of chronic interstitial nephritis	Died	8.7	144	11.0	Trace	225	+	+

** Normal findings: uric acid from 2 to 8 mg.; urea nitrogen, from 12 to 15 mg.; creatinin, from 1 to 2.5 mg. per 100 c.c. The symbol ♂ signifies male; ♀ signifies female.

*Chase and Meyers: Jour. Am. Med. Assn., 1916, vol. lxvii, No. 13, p. 929.

age clinical or hospital laboratory has had limited experience in the work and the average clinician lacks experience in interpreting results. There is no doubt that unlimited information and aid can be obtained from chemical analysis of the blood and the value of the work is now only limited by the amount of experience in laboratory technic and clinical interpretation. These two features can only be improved by constant and increased use of the tests and it cannot be too strongly urged that a greater amount of chemical blood work be done. The laboratory should encourage the doctor, and the doctors should stimulate each other, to a greater application and consequently a greater realization of possibilities, understanding, and appreciation of blood chemical analysis. Gradwohl makes the statement that the routine ex-

TABLE II.

The Prognostic Value of the Creatinine of the Blood in Nephritis*

Case	Age	Blood Analyses Mg. to 100 c.c.		Time Under Observation	Outcome
		Creatinine	Urea N		
1	25	33.3	240	1 mo.	Died
2	39	28.6	186	3 wks.	"
3	53	22.5	106	2 wks.	"
4	37	22.2	262	5 wks.	"
5	34	20.5	152	2 mos.	"
6	17	20.0	209	1 mo.	"
7	43	20.0	162	4 days	"
8	25	20.0	108	3 wks.	"
9	53	19.8	114	2 wks.	"
10	19	19.2	164	2 wks.	"
11	20	18.9	141	2 wks.	"
11	20	18.9	141	2 wks.	"
12	30	18.7	68	1 wk.	"
13	40	18.3	246	2 days	"
14	48	18.1	172	1 wk.	"
15	34	17.6	85	2 wks.	"
16	50	16.7	236	2 days	"
17	33	16.6	182	7 wks.	"
18	42	14.7	170	3 wks.	"
19	39	14.7	148	1 wk.	"
20	29	14.7	77	2 wks.	"
21	24	14.5	123	2 wks.	"
22	25	14.4	141	2 wks.	"
23	44	13.5	147	2 mos.	"
24	40	12.7	116	3 mos.	"
25	27	12.6	110	3 mos.	"
26	52	12.6	78	5 days	"
27	46	12.5	210	3 mos.	"
28	30	12.5	76	5 mos.	"
29	--	12.5	97	1 wk.	"
30	34	12.5	110	11 mos.	"
31	38	12.2	72	6 wks.	"
32	51	11.6	57	1 wk.	"
33	32	11.5	102	1 wk.	"
34	8	11.1	90	6 wks.	"
35	41	11.1	91	6 wks.	"
36	36	11.1	139	1 wk.	"
37	34	11.0	144	2 mos.	"
38	30	11.0	97	3 days	"
39	33	10.7	78	2 mos.	"
40	17	10.2	307	1 wk.	"
41	26	10.0	112	3 wks.	"
42	30	9.8	62	7 mos.	"
43	78	9.8	60	2 mos.	"
44	64	9.7	70	5 mos.	"
45	30	9.5	140	2 mos.	"
46	51	9.5	89	6 mos.	"
47	69	9.5	89	2 wks.	"
48	--	9.2	54	2 days	"
49	56	9.1	224	2 wks.	"
50	43	8.8	55	3 wks.	"
51	27	8.3	59	3 mos.	"
52	40	8.3	75	1 yr.	"
53	57	8.2	95	2 wks.	"
54	20	8.0	131	5 days	"
55	50	7.4	81	1 day	"
56	67	7.1	82	3 mos.	"
57	8	7.0	94	2 mos.	"
58	46	7.0	78	1 wk.	"
59	64	7.0	128	21 mos.	"
60	60	6.9	97	2 wks.	"
61	43	6.8	105	2 mos.	"
62	47	6.8	77	5 days	"
63	69	6.7	104	2 wks.	"
64	20	6.7	38	3 wks.	"
65	61	6.6	133	2 wks.	"
66	70	6.6	219	3 wks.	"
67	53	6.4	26	8 mos.	"
68	53	6.3	97	1 wk.	"
69	56	6.2	53	8 mos.	"
70	46	6.2	39	5 wks.	"
71	52	6.2	70	4 mos.	"
72	45	6.1	114	2 wks.	"
73	21	6.1	72	2 days	"
74	8	6.1	106	1 yr.	Recovered**
75	60	6.1	41	3 yrs.	Unchanged
76	56	6.0	52	3 mos.	Died
77	59	6.0	169	3 wks.	"
78	21	5.6	70	18 mos.	Recovered**
79	50	5.5	62	3 mos.	Died
80	12	5.4	42	4 mos.	"
81	53	5.3	100	4 mos.	"
82	30	5.3	100	1 mo.	"
83	62	5.3	25	2 mos.	Unchanged
84	29	5.2	65	1 wk.	Died
85	21	5.1	42	5 mos.	"

*Meyers, Victor C.: Jour. Lab. and Clin. Med., 1920, vol. v., No. 8, p. 568.

**Acute nephritis.

amination of the blood will be required some day in making a clinical diagnosis. This statement appears to be overdrawn but it cannot be disputed that if this rule were observed, the results would well repay the effort. I want to emphasize the point that blood chemistry is vastly more important and gives, beyond comparison, far more valuable results than urinalyses, but I do not wish to convey the impression that one should be used to the exclusion of the other, but rather that the examination of the blood and urine should go hand in hand for the purpose of obtaining the greatest amount of clinical data possible.

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SUBCUTANEOUS EMPHYSEMA DUE TO RUPTURED LARYNX IN AN UNTREATED CASE OF DIPHTHERIA.

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The case herewith reported is of interest because it presents at the same time a condition of rarity and exhibits the ravages of the disease when it is allowed to ge untreated or when anti-toxine has been delayed too long.

Any plea at this day and date for the early recognition of diphtheria and anti-toxine administration therein, seems superfluous, failure to supply the proper treatment in cases of this sort can be laid to only two things—first: the failure of the patient to present himself to a physician or neglect on the part of the physician.

Patient M: Aged eleven years, was admitted to the Herman Kieffer Hospital with a history of having had diphtheria for a period of four days during which time no anti-toxine had been given. The previous medical history is not remarkable. A consideration of the complete physical examination will not be gone into in this paper as it was not remarkable and can shed no light upon the subject at hand. Upon examina-

tion of the throat, one was immediately struck by the very foul odor that greeted ones nostrils, inspection revealed a pharynx completely filled with what was apparently a greenish gangrenous mass, one being struck by the fact that the mass must be more than a membrane and that it surely must be a gangrenous condition. Welsh and Shamberg in their book on contagious diseases make the statement that in their opinion they have never seen in diphtheria what they would care to call a gangrenous pharynx, but in the face of what occurred in this case I felt justified in an opinion that a gangrene did exist.

Upon admission to the hospital, the patient was given a massive dose of anti-toxine intramuscularly. The temperature was never over one hundred two degrees (102° F.) and pulse rate never very rapid nor was it of such a rate to make one believe that a vagus paralysis existed. The breathing was not difficult there being no evidence of a laryngial involvement up to the end of the first 24 hours in the hospital. At the end of the first day this unusual condition appeared, upon going into the ward the intern noticed that the breathing was quite labored and that the patient was evidently in a condition of shock; there was what appeared to be air hunger and the cyanosis was marked. Upon further examination it was discovered that there existed a subcutaneous emphysema that involved the entire chest, arms and the neck up to the chin level, the face not being involved. Dyspnea became greater and at the end of thirty minutes tracheotomy was performed allowing the patient some relief but ten minutes later the patient was dead.

COMMENT.

We were here dealing undoubtedly with a rupture of the larynx due to some erosive process and I believe that process was a gangrenous one.

This case is interesting firstly, because of its rarity; secondly, because as was evident from its course following tracheotomy, that the rupture was even lower than a point able to be reached by the tube (and the incision was made particularly low) and thirdly—because as mentioned in the beginning of the text we have here a condition that is due to the ravages of diphtheria when the anti-toxine is omitted for a long period and lastly—because of the presence of a gangrenous pharynx and larynx which must be exceedingly rare.

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TWO UNUSUAL CASES OF ENCEPHALITIS EPIDEMICA. CASE REPORTS.

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We wish to present two cases of Encephalitis Epidemica that have come under the diagnostic service of Dr. Stuart Wilson at Grace Hospital during the past year. These cases showed certain unusual and misleading onset symptoms, which made diagnosis difficult.

The two cases vary widely in mode of onset and clinical course, yet they offer the opportunity for speculation over the relationship of spinal fluid obtained at an early stage of the disease in the first case and at a later period in the second case.

The first patient offers an interesting diagnostic problem. He is an adult, aged 59.

Mr. W. H. was brought to the Hospital at 6 P. M., May 16th, 1920. The notes on admission are: "Patient is comatose, unable to rouse him, pulse is weak, irregular, rate above 100, respirations labored and 50 to the minute, urine contains 6 per cent of sugar.

The history as obtained at this time: On the day previous, Saturday, patient was feeling in perfect health and took a fifty mile auto trip. But in the evening on the way home was seized with very excruciating pain in back of neck, felt nauseated and vomited, felt better for a while, then started to vomit again, suddenly became weak and unconscious. Could be roused during night but deepened into coma Sunday morning. Involuntary urination started, a specimen Sunday A. M. showing a strong sugar reaction.

Examination at time of admission: Patient is a big, well nourished man in deep coma. Pupils are equal and react to light. No signs of cranial nerve involvement, no neck rigidity, no rash on skin, heart negative, blood pressure 140-80. Lungs negative except for large moist rales, abdomen negative except for distended bladder. Motor reflexes present, knee jerks exaggerated. Kernig and Brudzinski signs negative. Babinski negative. No acetone odor to breath, skin is moist. Temperature by axilla 102°, pulse arrythmic 104, respiration 50, labored. Catherterized specimen of urine showed 6 per cent sugar.

An impression diagnosis of Diabetic Coma was made and water given intravenously, subcutaneously and per rectum.

May 17th, the second day: Pulse is fuller, rate 80, still comatose. Patient resists effort to enter vein but otherwise shows no evidence of rousing from coma. Urine is sugar free, and blood is 0.1 per cent. Towards night patient very restless, begins to moan, and passes from a deep coma to one from which he can be roused.

Further history obtained from Mrs. H. at this time confirms the onset as described. Patient had been a strong, vigorous business man. His past history is devoid of interest except that he never had any increased thirst, no polyuria or itching of the skin. He has been a very heavy eater and rather constipated.

Our patient is evidently improving, an unusual occurrence in diabetic coma. The normal blood sugar, the rapid disappearance of sugar in the urine, the absence of an acetone odor to the breath, and absence of a ketonuria are all noteworthy. These facts, together with the negative

history of symptoms, makes diabetes very improbable.

May 18th, third day: Patient is very restless, rouses easily, moans as if in pain, speech is incoherent and thick. Pulse is good, volume 68, temperature 99.4°. Has control of bladder.

Examination reveals equal pupils but sluggish in reaction to light, slight ptosis of left lid, no strabismus, or nystagmus. Suggestion of drooping of left corner of mouth, tongue protrudes in mid-line, rigidity of neck, no muscle fibrillation observed, Kernig's sign is positive. Facial expression is one of apathy.

Lumbar puncture easily performed and a decided blood tinged fluid obtained. We are surprised at the presence of blood because there was no unusual trauma. Laboratory reports: Fluid, Wassermann negative, and bacteria free.

Blood count at this time 9,200 Leucocytes, 65 per cent Polys. Considerable relief from headache is obtained following spinal drainage.

The onset of severe vasilar headache, vomiting, coma, followed by cranial nerve involvement suggests a cerebral condition. A provisional diagnosis of Encephalitis Epidemica is made at this time. Patient sleeps considerably, but occasionally becomes restless and talks irrationally.

May 19th, fourth day. Ptosis is more marked, facial paralysis quite evident, left pupil dilated and very sluggish to light, no strabismus, diplopia, or nystagmus; neck rigidity and Kernig's positive. Slept considerably during the day, occasionally restless and wandering in mind. Does not recognize where he is.

Spinal puncture reveals fluid blood tinged, but less than previous. 60 cc. is drawn. Fluid is Wassermann negative, and bacteria free.

May 20th, fifth day. Patient passed a good night and seems brighter, asked intelligent questions. Temperature normal, pulse 60, and respirations 20. Neurological findings the same.

May 21st, sixth day. Patient flighty, is not clear in mind. Complains of headache. Neurological findings the same. Spinal puncture, 30 cc. obtained, fluid clear, yellow in color. Wassermann negative, cells 70 r. b. c. per cmm., 250 mononuclear leucocytes per cmm., globulin positive, Nonne test.

During the next week the patient is found to steadily improve. Mind remains clear, pupils become equal, and the facial involvement becomes less evident. The spinal fluid obtained on the twelfth day is clear golden yellow, 200 leucocytes per cmm., globulin positive.

During the remainder of his Hospital stay he was up and around with no return of his symptoms. Daily urine examination failed to show sugar.

Patient was discharged from Hospital June 12th, with apparently a complete recovery.

DISCUSSION.

The sudden onset of coma with a glycosuria was rather misleading in this patient.

Nausea, vomiting, coma, followed by cranial nerve involvement and lethargy certainly shows cerebral disease. The spinal fluid shows an inflammatory reaction and is Wassermann negative. Upon this picture our diagnosis of encephalitis epidemica is based. The glycosuria we cannot explain. The blood in the spinal fluid we thought at first to be traumatic, but now believe it to be part of the pathological picture. This first puncture was done on the third day of the disease, this specimen, as you remember, was distinctly bloody, later on the fluid was clear yellow. We are inclined to believe that if the first spinal puncture had been performed on the eighth day of the disease, a clear yellow fluid would have been obtained and the initial bloody fluid been unknown. This opinion is suggested by an experience with another patient.

This little girl, aged 9, exhibits another type of onset of Encephalitis Epidemica.

May 13th, she fell from a stool about two feet high, striking her head upon the floor, vomiting and headache follow. This headache continued and dizziness appeared. Patient remained more or less in bed for a week complaining of headache and dizziness. The night of May 21st she was found lying in bed in a stupor with a staring look to the eyes and hands held out rigid. (Mother's description). During the night mother describes a series of clonic convulsions, lasting about one hour. Patient was admitted to Surgical Service on May 22nd with diagnosis of fracture of skull.

The notes on admission are: "Poorly nourished child, conscious, temperature 102, pulse 86, respiration 22, complains of headache." Patient had several slight convulsions followed by twitching of eyes, limbs and body.

May 23rd: Sleeps most of the time but rouses easily; has involuntary urination and defecation. X-ray of skull negative for fracture. Urine negative, while cells 10,120, polys. 79 per cent.

May 28th: Patient first seen by Medical Service. Notes at this time are: "Ill nourished child, lying in opisthotomus, unresponsive to questions and disinterested in her surroundings. Ptosis of left lid, strabismus both eyes, pupils equal but sluggish to light. No nystagmus. Marked neck rigidity; positive Kernig. Impression diagnosis: Tuberculous Meningitis. Lumbar puncture performed during the day showed clear yellow fluid containing 250 mononuclear leucocytes per ccm., positive globulin and negative Wassermann. The evening of the 28th notes are: "Patient sleeps but rouses easily. Falls off to sleep while being talked to." Reviewing the meager history at our disposal, we have the following: Past and family history negative. Fall from a stool followed by vomiting and headache. Headache and dizziness continued. One week later convulsions and muscle twitchings started, followed by sleepiness. Just when the cranial nerve involvement became manifest the record does not show but apparently it accompanied the lethargy.

We first saw the patient 15 days after the fall and seven days after the onset of the convulsions.

We feel that the fall was an incident of no importance in this picture. The disease probably started May 21st with convulsions, passing from this irritative stage of three or four days duration to one of cranial nerve involvement. A week after onset the picture was one of extensive cerebral involvement including 3rd and 7th nerves, opisthotonus, involuntary sphincters, and lethargy. A temperature of about 101° persisted for two weeks, accompanied by a relatively slow pulse.

A fundus examination was negative, showing no optic neuritis or choked disc.

Several lumbar punctures were done, the first one on the seventh day of the disease, all showing a clear yellowish tinged fluid with increased cells and globulin.

The patient was discharged from the hospital June 19th with the strabismus as the only residual symptom.

DISCUSSION.

The diseases we considered in this case were: 1. Encephalitis Epidemica; 2. Tuberculous Meningitis; 3. Brain Abscess.

The course of the disease, ending in recovery, rules out meningitis. Brain abscess was a strong probability except for the double strabimus, the negative fundi and the absence of a leucocytosis. The spinal fluid findings were those of an inflammatory process involving the meninges. We feel that the diagnosis of encephalitis epidemica more nearly describes the condition. The spinal fluid was peculiar in its yellowish tinge and we cannot help but wonder from our experience with the other case, whether there was not a time in the early stage of this patient when the fluid would have been bloody.

A CASE OF INTRA-UTERINE FRACTURES. (Osteogenesis Imperfecta)

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Baby Ruth A, presenting as a right sacrum anterior, was delivered spontaneously after 9 hours of an uneventful labor. Routine examination revealed the fontanels and sutures to be wide open. The anterior fontanel was three inches in diameter and extended anteriorly to within 2 cm. of the bridge of the nose. The cranial bones were apparently as thin as parchment, making the head soft and boggy to palpation. There was no enlargement of the head, however, the measurements being: Suboccipital bregmatic 10 cm., biparietal 9½ cm., occiptal frontal 11 cm., and occiptal mental 13¼ cm. The weight at birth was 3044 gms. and the baby was 48½ cm. in length. The skin over the trunk and extremities was soft and delicate. Nose and ears were negative. The sclera was of the normal white color there being no suggestion of a bluish tinge. Tongue normal, face small, slightly wrinkled giving the baby a peculiar elfish appearance. Thorax apparently normal. Abdomen proturberant with moderate tympany throughout, genital and anal regions negative.

The right leg was 1 cm. shorter than the left and the femur of that side was found to be bowed with what was apparently an exostosis in the middle third. Examination of the left femur demonstrated a similar nodule in the middle third but the bowing was not as marked. The epiphyseal endings of the long bones of the lower extremities were not united. Examination of the forearms showed that each radius in the middle third contained similar nodules. Although the examination did not require much manipulation, the right femur was broken at this time showing the extreme brittleness of the bones.

Family History.—A detailed history was obtained from the mother. There was no family history of Brights Disease, tuberculosis, cancer, insanity or any suggestion of any similar condition as presented by the baby in either the maternal or paternal branches of the family. The mother was a primipara age 25; white; an American. She gave no history of rickets, scarlet fever, diphtheria, rheumatism, syphilis, nor any symptoms pointing toward cardiac, pulmonary or renal complications. She had always lived an athletic outdoor life. Her only operation consisted of an Alexander suspension for retroversion of the uterus.

There was no change in the general health with the onset of pregnancy. Detailed questions were asked concerning the diet during the prenatal period. There was no particular fondness for certain foods and a well rounded diet was maintained throughout the pregnancy. During the 4th month of gestation the patient was required to travel by rail 1800 miles. The trip was apparently uneventful. The fetal movements were never excessive at any time.

Mr. A. was of the athletic type, insisting that he had never been ill. Mother's father's and the baby's Wassermann's were all negative.

Differential Diagnosis—This intra uterine pathology of the bones led us to make a provisional diagnosis of osteogenesis imperfecta, chrondrodystrophy, congenital syphilis or congenital rick- etc. As the radiographic shadows of these conditions are quite different and distinct, X-ray plates were taken within 4 hours after delivery.

The report of roentgenologist was as follows: "All of the bones show a marked increased radiability denoting loss in lime salt contents. The cortex of the long bones is markedly thin. There

are numerous fractures, some of which are old as evidenced by the bony callus surrounding the fracture points.

Both clavicles are fractured in the middle third with a resulting sharp angulation. Both radii show fractures in the middle third. The fracture of the left radius has an abundant callus. The fracture of the right radius however is a recent one.

The right femur shows a fracture through the surgical neck with no evidence of new bone formation. There is another fracture in the middle third of the right femur which has healed with abundant callus. In the upper and lower third of the right leg, two fracture lines are observed, but it is difficult to say whether these are fractures of the tibia or fibula, as there are no anteriorposterior plates available. There is a marked anteriorposterior bowing of the leg in the middle third but no apparent fracture at this point. The left femur shows a fracture in the middle third with abundant bony callus. The lower leg shows a transverse fracture in the middle third with bowing. This appears to be in the tibia. The skull shows generalized thinning of the cranial bones, particularly at the vertex. From the presence of new bone formation, it is evident that most of the fractures described occurred in utero.

COMMENT.

The distinctive characteristics of the roentgen findings in this case are those of a pathological process not limited to any particular part but involving the whole bony framework. The process is characterized by, (1) A loss of lime salts, producing a fragile condition of the bones, which has resulted in numerous fractures. (2) The absence of changes in the epiphysis. (3) The ability to produce new bone and the absence of retardation in the diaphyseal growth. As a result the long bones show no shortening. These findings are characteristic of osteogenesis imperfecta.

Radiographically, osteo-genesis imperfecta must be differentiated from achondroplasia, rickets and syphilis. From the former, it is distinguished by the absence of shortening of the long bones or epiphyseal changes. In achondroplasia there is a squaring and widening of the epiphyseal end. From rickets and syphilis, it is differentiated by the fact that there are no changes in the epiphysis."

OSTEOGENESIS IMPERFECTA.

Vrolik in 1849 first described the condition of multiple intra uterine fractures giving it the name "osteogenesis imperfecta." It was left to Stilling in Von Recklinghausen's clinic to first describe the pathology accurately and to him must be given the credit of making osteogenesis imperfecta an entity. Lobstein, in 1885, described a condition of fragility of the bones occurring in infants *after* birth giving it the name "osteopsarthyrosis." He contended that this condition was distinct from the congenital form referred to as osteogenesis imperfecta. However, Nathan, Sumita, & Looser after careful pathological and clinical studies have declared the conditions to be identical. Schwartz and Bass recognize two types of osteogenesis imperfecta (1) cases occurring during intra-uterine life, (2) cases which appear to be apparently normal at birth and early or late in childhood, suddenly develop a tendency to multiple fractures.

ETIOLOGY.

No definite etiology has been associated with this rare affection. Holt says no especial disease can be held responsible, that osteogenesis imperfecta is at times found in certain families associated with a peculiar blue coloring of the sclerotics and in such cases is distinctly hereditary. Griffiths has commented upon this hereditary tendency. Syphilis may not be considered an etiological factor. Deficient thyroid activity had been associated with this condition but Sumita after a careful study states that there is no association between the two conditions. Schwartz and Bass contend that the condition is a true fetal disease citing a case of twins, one with marked osteogenesis imperfecta; the other, perfectly normal.

PATHOLOGY.

The radiographic findings are characteristic. The shadow formation is deficient as all the bones have increased permeability to the X-ray. In length the growth of bone is normal, shortening coming as a result of fractures. The fractures are multiple, mostly intraperiosteal with excessive callus formation. The bones may be soft and pliable but the majority are extremely brittle. The osteoblasts are deficient not only in numbers but in activity the cortex is extremely thin and the diathesis often nothing more than a firm membranous periosteum filled with a red-brown mass intersected by fine bony spicules. The substantia spongiosa is made up of wide meshes, the structural markings being absent. Hess, contrary to other observers, describes an excessive callus formation follow-

ing fracture also stating that the epiphyseal cartilages and their centers of ossification are larger than normal and the epiphyseal lines are straight.

As in the long bones, the ones of the skull are entirely devoid of calcification. The base of the skull however shows some ossification but is thin and friable.

PROGNOSIS.

The majority of infants with osteogenesis imperfecta are still-born or die within a few days after birth. The extreme friability of the bones, with the tendency towards multiple fractures and resultant shortenings, leaves those that survive crippled for life. The slightest trauma may cause fracture. Our case had one ulna, tibia and two ribs fractured as a result of carrying the baby from the nursery to the mother's room. The deformities seen in this condition are often as marked as in cases of chondrodystrophy. Some cases show marked improvement, the bones becoming less friable with the growth of the infant and the tendency towards multiple fractures greatly reduced. Occasionally these individuals live active, energetic lives. This is not the rule.

The prognosis is just as grave in the cases which at birth are apparently normal and then suddenly develop a tendency towards multiple fractures.

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A HANDY LITTLE REFERENCE BOOK FOR THE BUSY DOCTOR.

Parke, Davis & Company recently issued a little reference book on Adrenalin that should be in the hands of every practitioner of medicine. It is an excellent desk companion, most conveniently arranged for ready consultation.

In glancing through the pamphlet the reader is impressed by the fact that, after twenty years or thereabouts, Adrenalin occupies a position of importance in therapeutics second to that of no other medicinal agent. In other words, it is now recognized as a standard and indispensable preparation, notable especially for its efficiency in vasomotor disturbances, shock and collapse, hemorrhage, asthma, as an adjuvant in local anesthesia, and in the field of endocrinology. No less impressive is the great array of preparations of Adrenalin or preparations of which Adrenalin constitutes the principal ingredient.

Thus we have available pure Adrenalin in crystals and in tablet form, and Adrenalin Chloride in solutions of 1:1000, 1:2600 and 1:10,000 in hermetically sealed glass ampoules, exceedingly convenient for emergency use. The 1:1000 solution is also supplied in ounce bottles. Adrenalin Inhalant is nicely adapted for use in a nebulizer in the treatment of nasal and pharyngeal affections. Then we find Adrenalin Suppositories and Adrenalin Compound Suppositories for the treatment of rectal inflammatory affections, hemorrhoids, etc. The uses of Adrenalin Ointment, Adrenalin and Chloretone Ointment, and Apothesine Ointment suggest themselves in the control of inflammations of mucous membranes. The list of local anesthetic combinations includes Tablets of Adrenalin and Cocaine, Apothesine and Adrenalin, Apothesine Solution, Codrenin, and Locosthetic, the latter two being aqueous solutions designed particularly for the use of dentists.

It should be said in all fairness that Adrenalin is the original natural preparation of the active principle of the suprarenal gland. It is a vastly better product than any synthetic compound, and under the present highly perfected process of manufacture it is a stable and dependable preparation of uniform strength. In specifying the original Adrenalin the physician assures himself that his results in its use will not disappoint him. We suggest that our readers send for this little book, "Adrenalin in Medicine."

The Journal
OF THE
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ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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June, 1921

Editorials

HISTORY OF THE CHIROPRACTIC BILL.

The membership of the State Medical Society and its many friends successfully defeated the chiropractic bill in the legislature just closed, after it had passed both houses with practically no opposition either in the Health Committees or upon the floor of either the House or Senate.

Briefly, the bill introduced and passed without amendment (until recalled) had in the main the following provisions:

Section 1. Provision is made for a board composed of five chiropractors who have been practicing chiropractic in Michigan during the past three years.

Section 2. Provision is made for the licensing of chiropractors who have matriculated upon the basis of a high school diploma or equivalent credential; graduates from a chiropractic college having a course of three years of six months each year and passing a board examination upon chiropractic subjects which does not include bacteriology, surgery or obstetrics. (Note the absence of the knowledge of the subjects in the treatment and cure of "anatomic disrelation.") Provision is made, also, in this section for the registration of all chiropractors who had been in (illegal) practice in the State during the past two years.

Section 5. Chiropractic is defined to be the science that teaches that disease results from anatomic dis-relation and teaches the art of restoring anatomic relation by a process of adjusting by the use of the hand, and is declared not to be the practice of medicine, surgery, mid-wifery, or osteopathy: Provided, It shall be unlawful for any person registered under the provisions of this act to use or prescribe any drugs or medicines in the practice of said system or method, and practitioners shall use the prefix "Chiropractic practitioner."

Section 7. Any person who shall practice or attempt to practice, or use the science or system of chiropractic in treating diseases of the human body, * * * * * * * * * * shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than fifty dollars nor more than five hundred dollars, or be imprisoned in the county jail not less than thirty days nor more than one year, or both * * * * * * * * * *

Section 9. All acts or parts of acts in conflict with this act are hereby repealed.

It will be noted that under Section 5, as quoted, the definition of chiropractic, i. e., "anatomic disrelation," covers the fields of surgery, obstetrics and gynecology, and is further declared "not to be the practice of medicine, surgery, midwifery and osteopathy." Registered medical men are not exempted from the provisions of the bill, neither are osteopaths. *Do the medical men realize how close a call they had of being legislated out of the profession of medicine?*

The stupendous outrage committed upon the citizens of Michigan, if this bill had passed can hardly be estimated. In illustration and emphasis a very few of the more common 'anatomic disrelations" are cited: hand and arm presentations, extra-uterine and tubal pregnancy, strangulated hernia, tumors, including cancer, and hundreds of other "anatomic disrelations," including fractures, dislocations.

Are any of the above (or others) to be cured or remedied through a pretended adjustment

of a vertebra? Also, involved in the bill is the absolute destruction of health laws and quarantine. The Industrial Accident Board would cease to function under the definition as above, from the fact that no evidence of injury would be possible, except through the testimony of Chiropractors as surgeons would be disfranchised.

The amount and quality of gray matter involved in a legislator seems impossible of computation even by the metric system. The only excuse offered by those active in the promotion of the bill was that they had not read it.

The chiropractic bill passed the Senate, April 21st, without amendment, by a vote of 22 yeas and 4 nays, the following Senators voting nay: Bolt, Johnson, McArthur, McCrae. Upon motion of Senator Johnson, the bill was reconsidered, April 25th and 26th. In the meantime the members of the Senate had received some three thousand telegrams protesting against the passage of the bill, or its amendments in any form. Its promoters, therefore, in order to meet the situation offered the following amendment to Section 5: "Strike out Section 5 of said bill and insert in lieu thereof the following: Section 5. It shall be unlawful for any person registered under the provisions of this act to use or prescribe any drugs or medicines, or to practice surgery, midwifery or osteopathy in the practice of said system or method, and practitioners shall use the prefix "Chiropractic practitioner." This amendment was carried. Senator Johnson then offered the following amendment: "Section 5. After the word "midwifery" insert "or treat infectious or contagious diseases." This amendment was carried by votes of 21 yeas to 7 nays. The Senators voting against the amendment were: Baker, Browers, Bryant, Davis, Riopelle, Vandenboom and Wood. Senator Brower then announced that the amendments adopted had effectually "killed" the bill, and upon motion that the bill be passed the vote stood yeas 1, nays 25. It has been stated by active supporters of the bill in the legislature that it had the endorsement of members of the State Society in prominent official positions. It is hardly believable that any member of the society has fallen so low in the realization of his duty to his profession, and to the public welfare, whereby he could be induced to endorse and support such iniquitous and destructive legislation.

Subsequent to the defeat of the bill, a desperate attempt was made to resuscitate it, and for that purpose Dr. Angus McLean, President of the State Medical Society, and Dr. J. B. Kennedy, Chairman of the Wayne County Legislative Committee, were summoned to Lansing, and it was suggested that they rewrite the bill in any form, and with such amendments and restrictions as were thought necessary, in order that the chiropractors might be able to have a board and state recognition. This suggestion was absolutely and finally rejected, and the promoters of the bill were informed that under no circumstances would the medical men assent to a chiropractic board in any form or under any conditions. It was, also, suggested that the bill in the House (which had already passed the Senate) amending the medical act in its penal clause, and which had been defeated out of spite in revenge for the defeat of the chiropractic bill, would be revived and passed, provided asent was given to the revival of the chiropractic bill in the Senate. This overture was absolutely rejected also. The Committee on Legislation involved in the defeat of the bill and those medical men throughout the State who so effectively influenced the senators through telegrams and personal interviews, deserve the very highest praise for their activities, and it was demonstrated that the medical men in the state have the power to influence legislation when working effectively and as a unit.

Too much credit for the final defeat of the chiropractic bill can not be given Senator O. G. Johnson (M.D.), who in spite of the organized effort behind the bill, was successful in defeating a measure which had primarily passed the Senate by a vote of 25 to 4. A great deal of the time he was the only senator in opposition. His attitude at all stages of the bill was a "fight to the finish and no surrender." Seldom in the Senate has a bill which has passed both houses with a minimum of opposition been recalled and overwhelmingly defeated.

THERAPEUTIC ADJUNCTS.

We are just in receipt of a letter from one of our members expressing regret, after noting the subjects for discussion at our annual meeting, that no one has thought to bring up for discussion electro and mechano therapeutics. The criticism is pertinent and timely. The Doctor has had an extensive and valuable military experience in reconstructive and rehabilitation surgery. He has observed the at times marvelous results of electro and mechano therapy. He likewise, is aware that many doctors are entirely unfamiliar with these forms and methods of treatment. Naturally he deplores this fact and is eager to see these methods brought to the attention of the profession. In all of which we are in hearty accord and are taking his letter as the subject of this editorial.

Those who attended the meeting of the Michigan Section of the College of Surgeons, held in Detroit this past month, were impressed with the illustrated discussions presented by Drs. Mock and Kanavel of Chicago. The results they accomplished in corrective, reconstructive and rehabilatation surgery were indeed inspiring. On numerous occasions we have remarked that we as a profession only partly completed our work in our cases where injuries had been sustained as well as when dealing with pathological conditions. The healing of the incision or the wound does not and should not imply the dismissal of the patient. The suture of a tendon, nerve or the reduction of fracture does not imply completed treatment. The loss of anatomical structures does not preclude functional destruction of a member or the individual. Neither are we justified in consigning such individuals to the human scrap pile or permit them to be the pensioners or wards of industry or society. Present day surgery and electro-mechano therapeutics will reclaim and rehabilitate these individuals if we but apply and make use of that which can be beneficial.

Massage has definite indications. Electro therapeutics in the form of the galvanic and faradic currents, the Alpine light, ultra-violet rays and Kromayer light will accomplish results that are unbelievable to the inexperienced. Mechano-therapy properly selected and persistently employed will restore function where hope has often been abandoned. Occupational therapy will frequently change the mentality and personality of the afflicted individual. We might devote an entire issue in discussing the indications, use and results obtainable by any one of these therapeutic agents or methods. Such is not our purpose; we simply mention them in passing because they are proven adjuncts.

The profession must desist from doing half work. We must complete our cases. Our failure to do so in the past is what has called into existence the several cults. Unless the future witnesses more completed work we need not rant about those who join these cult organizations. We solicit articles upon these therapeutic adjuncts and urge that our members institute these methods of treatment.

THE CHIROPRACTIC DEFEAT.

How our county societies rallied and exerted their influence upon the Senators when the emergency call for action was sent out and how that expression of activity occasioned the defeat of a most pernicious bill that would have recognized chiropractic practitioners is now common knowledge. We do not propose to recite the details. We do, however, want to record appreciation of the response that was forthcoming and to ascribe credit to Dr. McLean and the county officers for their splendid work.

The organized activity that was evidenced should serve as a memorable illustration of what the profession may accomplish. It demonstrates what we have frequently claimed. It means that we must continue to keep in touch with our legislative representations and keep them enlightened upon medical and health topics. This cult, it is said, spent a large sum of money. They are defeated but not yet wiped out. The next legislature will witness the introduction of a similar bill. It is right now that we should institute our educational campaign with 1923 in view. A campaign that will not only defeat the chiropractors but which

will also make it impossible for socialized medicine propagandists to secure the passage of favorable legislation. Preach the subject at every place and on every occasion that an opportunity presents.

We sympathize with Iowa and Missouri. Here's hoping that their experience may open legislative eyes and bring about an appeal in 1923.

THE MEDICAL PROFESSION AND THE PUBLIC.

DR. J. B. KENNEDY.
Chairman Legislative and Educational Committee of the Wayne County Medical Society.

When the Wayne County Medical Society, early last December, decided that the profession ought to get in closer touch with the public, we had a vague idea that we were "in bad" popularly speaking, but we had no idea how great was the ignorance of the outside world regarding the real aims and ambitions of the profession.

We did not know how little was understood about the efforts of the profession to perfect itself in the science and art of medicine and surgery, its desires to co-operate with the laity in the fighting of disease, or its real interest in social betterment. We knew there was talk of "State Medicine" and realized, more from intuition than actual information, that ideas dangerous to the profession were fast becoming popular.

It was not until the Legislative and Educational Committee, appointed by the Wayne County Society got to work among newspapermen and public officials that we realized how serious the feeling was becoming against doctors in general.

This may sound frank, but this is a time for frankness. In these days of open covenants, the profession or class which doesn't lay its cards on the table face up fares badly in the onward march of progress.

We soon found, in the course of our investigations, that there was really something serious likely to materialize from the idea in certain quarters that there was such a monster as the "doctor's trust." We found that workingmen were actually demanding social health insurance. More because the phrase sounded good than anything they knew about the actual working of the system. But health insurance they were demanding.

We found that the more intelligent classes, political leaders, newspapermen and others interested in public affairs, had come to consider us a selfish, narrow class which thought more of the financial aspects of an appendectomy than we did of its clinical significance. We heard, with some misgiving, talk of state regulation of fees.

But when a bill regulating fees for surgical operations, fathered by Rep. Floyd A. Rowe, of Hillsdale, actually did make its appearance in Lansing, we were alarmed. And when it was introduced in the House and drew the first spontaneous applause accorded any bill during the session we knew that there was in the general epidemic of unrest a few germs that fed only on the medical profession.

That bill still sleeps in committee. I say sleeps. For although the session is ended and the more proper expression, ordinarily, would be to say it is killed, there is another session of the Legislature coming and it is only two years away. And there are more sessions to come in the years of the future.

We found many of the lawmakers totally ignorant of the significance of many measures on which they were called to vote. Some of them voted on important medical legislation and admitted later that they had not even read the bills. They had simply been told, by friends, or political leaders that the legislation was "all right" or a "good thing."

Which is not a criticism of the legislator. We have found scores of doctors as ignorant along these lines as the layman. When a bill is introduced entitled "An act to regulate the Practice of Chiropractic," and a casual reading of it brings the conviction that the measure is something to restrict Chiropractors, the lawmaker is likely to vote for it even though some dear relative of his has been killed by a Chiropractor and he thinks he has been getting revenge in curbing the operations of this group of fakirs.

Just this situation arose at the last session of the legislature. It was not until this committee, through its publicity representative, informed the legislators of the true facts, that many of them knew what they had been voting for. It was not until then that they learned that the bill was really backed by the Chiropractors and that this measure, had it become a law, would have given to this dangerous cult not only legal status in Michigan which they do not now enjoy, but the actual right to practice medicine and surgery.

In the old days the way to have protected ourselves at Lansing would have been to bargain with the professional lobbyist. To-day, the most powerful force for public good lies in education and publicity. If we are right we can scarcely lose, in the long run, if the public knows all sides of any question affecting the welfare of the people. If we are wrong, we can only hope to lose. It has been the feeling of the Wayne county members of the profession that we have had the right side of the argument in many of the proposed pieces of legislation affecting the profession. We have convinced some of the most influential members of the newspaper profession and some of the most powerful public officials that some of the legislation offered at the recent session of the Legislature was positively vicious in its potential harm to society. It was because we had the right side in the Chiropractor fight that we were able to convince Governor Groesbeck of the viciousness of the Chiropractor bill after he had lent his support to the measure under the impression it was harmless and the bill had passed both the House and Senate almost unanimously. The manner in which that measure was recalled, reconsidered and killed after it was on the way to the Governor's office for signature was one of the marvels of the session. Not in years, if ever, has such a political feat been accomplished.

That coup was accomplished without the aid of a single politician, lobbyist or fixer. It was accomplished in spite of the determined opposition of the Senate organization led by Senator Burney E. Brower, a Jackson lawyer who drew the bill for the Chiropractors and fought for it all the way in Lansing. It was brought about because the medical profession throughout Michigan was organized almost overnight during the closing hours of the session. Because ours was a campaign of publicity instead of lobbying, because we had the best of the argument, we were able to talk frankly and openly to newspapermen and legislators. We had nothing to hide. The Chiropractors had everything to conceal. We won.

There were other matters of legislation up before this committee for consideration during its four months of continuous activity. There was consideration of the proposed health insurance bill, legislation for the purpose of establishing community hospitals, legislation affecting the Detroit College of Medicine and other measures, details with which I will not bore you in this article. But suffice it to say that questions of this character are coming up more and more in the future. We are going to have to consider innumerable pieces of legislation in the future relating to our profession. In addition there is taking place rapid changes in the social fabric which must bring about new adjustments between ourselves and the laity. It is to make intelligent readjustment along with the rest of society that the profession should maintain a bureau whose sole duty it is to keep in touch with current events, keep the public informed of our doings and keep us informed of the goings-on about us.

Such a bureau should keep in close touch with newspapers and public officials. It should be in a position to correct wrong impressions of us held by the press. It should always know the attitude of prospective legislators on matters affecting not only the profession but public health.

Co-related with the publicity features of this bureau should be a plan for reaching the people through direct appeal to the public from individual members of the profession. Popular lectures on medical subjects should be given by eminent members of the profession at every opportunity. The Rev. S. S. Marquis, late head of the Sociological department of the Ford Motor Co., at a recent public meeting of the American College of Surgeons, suggested that

all churches be turned over to the profession once a month for discussion of the relation of the profession to the public and other subjects on medicine and health. If this opportunity is given it should be seized by the doctors. Clubs, churches and schools should be informed that they will be furnished with speakers whenever desired.

I do not mean to say that the bad standing the profession suffers in certain quarters is entirely due to ignorance on the part of the public. I realize that the profession itself, or at least certain members of it are to blame for some of these impressions. The profession is not wholly without sin in many of its relations to the public. But I believe, that with proper exchange of ideas between the public and the profession, the profession is going to get as many benefits as the public. I know that we are going to find things out that will make us mend some of our ways. But we are at least going to have the satisfaction of knowing that the straightening out of the professional kinks comes spontaneously from within our ranks rather than from unintelligent meddling from without.

Note: A full report of the activities of the Educational and Legislative Committee of the Wayne County Medical Society may be had by writing to Dr. J. B. Kennedy, Chairman, 410 Washington Arcade, Detroit, Mich.

TOOTING OUR HORN.

The———session of the American Medical Association will convene in Boston during the week of June 5th. In former years it has been customary for the churches in the city where the convention is held to invite leading members to address their congregations at the Sunday services preceding the annual meeting week. These invitations have always been accepted and the subjects discussed by our doctors have usually dealt with Public Health, Preventative Medicine, Infant Welfare, etc. All of which we make no criticism.

This year, at the Boston meeting, the churches of that city have extended a similar invitation which has been accepted. The committee that is arranging for speakers to fill these pulpits have selected as the subject to be presented—"The Achievements of the Medical Profession." We commend most highly the committee's wisdom and foresight. It is a most fitting text for that Sunday's series of meetings.

Some ultra-conservatives may exclaim that it will be a tooting of our own horns. That is what it should and will be, but in a dignified and enlightening manner. This is the educational feature that must be imparted to the public. Too long have we kept the people in darkness as to what we are doing, and what is being wrought for their good. It is high time that we let our light out from under the bushel. May this be but the beginning of a dignified public tooting of our own horn that will extend across the entire country.

Editorial Comments

This issue went to press before the convening of our annual meeting in Bay City. The July issue will contain the complete transactions of that session. Look for it.

The Michigan Section of the American College of Surgeons held its first meeting in Detroit during two days in the last week in April. The mornings were devoted to hospital clinics which were well arranged for by Detroit surgeons and hospitals. Scientific sessions were held in the afternoon. On one evening an open meeting was held for the public. The session closed with a banquet. About 135 Fellows of the College were in attendance. The next session will be held in Grand Rapids.

The legislature authorized the appropriation that will enable our commission on Health to manufacture and distribute without cost vaccines and serums. Michigan thereby takes a forward step in preventative medicine that will witness a lowering of our death rate in diphtheria, and other contagious diseases. The details of the application of this measure will be announced when the commission adopts its rules governing the distribution of these serums.

The Chiropractors certainly planned far ahead when they secured the pre-election promise of our Governor to support their bill. We are not a little surprised that our Governor should have

become a party to the plans of this cult, knowing as he must, that such a measure would have been injurious to the public's welfare.

More and more do we hear comment and discussion of fees doctors and surgeons are receiving. The public as well as the patient concerned is giving vent to their opinions which are universally far from laudatory. Considerable of this adverse criticism is based upon ignorance of true facts and some because of failure to take into consideration the training requisite to establish the ability to command commensurate fees for services rendered. Again instances are set forth where the fees charged and demanded have been wholly unreasonable. We firmly believe and hold that proficient services merit full payment. However, we must ever be mindful of the patient's financial state when fixing our fees. Nothing will bring about socialized medicine or state medicine quicker than extortion for services. The poor of course do not pay, the very rich usually can meet a just obligation without embarrassment, the middle type of individuals, who by far are in majority, must be dealt with considerately. It is this middle class that will demand state medicine when the medical profession, nurses and hospitals place medical services beyond their financial reach. Shall we not be careful when fixing our fees for services to this class of patients?

We are proud of our advertisers. They are a high type of business firms. You can deal with them with every confidence in their integrity. May we not assure them of your preference for them and bespeak your patronage to them?

There have been times when we have been tempted to keep a diary for recording our experiences in the problems that come to a secretary and editor and to publish each month's record. The purpose would not be to set forth that which we are doing but rather to reveal the incidents that arise, opinions that are expressed, the comments made by both doctors and lay individuals, the sentiments that exist—oh well, everything that concerns the profession and its relationship to the public and which comes to our desk and attention thereby creating a definite viewpoint. To do so, we have thought, would reveal as well as create a change in sentiment and action on the part of our members in their relation to the people of their immediate community as well as to their fellow members. We dislike to be forever preaching and warning but we would be derelict in our duty did we not persistently continue to impart suggestions and advance advice as to policies and action. Our suggestions and recommendations are not based upon personal opinions. They formulate themselves from that which we see, hear, read and encounter while acting in an official capacity. Many times our personal attitude would be at variance with our editorial viewpoint did we seek our personal advancement. That which we say and write is based solely on our knowledge of affairs in general and a reflection upon what is best for the profession as a whole and our organization collectively and not individually. It is this viewpoint that we strive for and in attaining it we must necesarily trespass upon individuals and incur their antagonism. We regret being compelled to do so but our organization's welfare is more important than any single individual.

When will reputable physicians and surgeons cease erecting camouflages and be frank and open? Why perpetuate mystery or magnify incidents? We heard it twenty years ago and still hear it to-day: "Your tonsils were so diseased and rotten I had to take stitches to stop the bleeding," "The operation is very delicate on your sinuses because in doing it I am working within a sixteenth of an inch from your brain," "Yours was the worst case of appendicitis I ever encountered." We might continue ad nauseam. Of course there are patients who like to think they were the exception as well as those who magnify, but the suggestion all too frequently emanates from the doctor. Why not be honest and cut out all such rot. When a patient tells that Dr. Blank told them such a tale that doctors opinion of Dr. Blank immediately becomes lowered. You can be sympathetic and attentive to your patients without handing out or rubbing in putrid salve of the above brand.

Laws in Ohio, New Jersey, Pennsylvania and in several other states set forth the fees that may be collected by doctors for their services in industrial compensation cases. We are informed that they were enacted because physicians persisted in charging exhorbitant and at times extortionate fees for services. Such a bill was introduced in our state but was never reported out by the committee. A discussion and consideration of this subject should be engaged in at our county meetings and at our State meeting in 1922.

A recent number of the Journal of the Indiana Medical Association contains a very sane article on the Chiropractors. In Indiana they announce that they will introduce into the next session of

the State Legislature a bill giving them a special board of examiners.

In the first place there is no occasion for having a multiplicity of boards to pass on the requirements of those who desire to treat the sick. In the second place it would be distinctly class legislation to permit the Chiropractors to observe any less requirements for treating the sick than are required of any one else. In the third place no person should be permitted to treat the sick without proving to the satisfaction of the examining board that he or she possesses a knowledge of the fundamental branches which go to make up an intelligent conception of the nature and cause of disease. In the fourth place the public is entitled to protection from the work of the ignorant and incompetent. In the fifth place no Chiropractic can have any intelligent conception of the nature and cause of disease nor formulate a rational basis for treatment without having been adequately trained in anatomy, physiology, pathology, bacteriology, and physical diagnosis and such training can not be secured in the few weeks that are given to the training of Chiropractors. In the sixth place opinions may differ as to the kind of treatment to be instituted but there are certain fundamental facts pertaining to the body in health and disease which must be known by every one who attempts to treat disease. In the seventh place if education means anything at all in any profession or vocation, it means much in the practice of the healing art. In the eighth place if a bunch of uneducated, untrained, and wholly impractical men and women (like the chiropractors) are to be recognized legally, it is time for us to stop paying taxes to support research laboratories and educational institutions of every type.

One of the more important bills passed by the Legislature this past session was the one giving the Attorney General supervisory control over prosecuting attorneys in this State. Heretofore the Attorney General could do nothing except when requested by a judge or when authorized under special circumstances by the Governor. Under the new act in all criminal complaints (all violations of the Medical Act are misdemeanors), preliminary reports of the same must be filed with the Attorney General and also the final reports upon the deposition of the cases whether prosecuted or nolle prossed and the reasons when no action has been taken.

The reasons why quacks and chiropractors are permitted to practice in the State seemingly without let or hindrance is due to the neglect or refusal of the majority of prosecutors to fulfill the duties of the office to which they have been elected. Every possible method and excuse has been used in order to "stall" the case (promises of action when no action is taken or contemplated, frequent adjournments of trials, insistance upon complaints being sworn to by local physicians who furnished evidence of violations and other excuses without merit and too numerous to mention.)

While the Medical Board under the law can make complaints and investigate reported cases to a limited extent, it is not allowed (under the ruling of the Auditor General) to expend any of its funds in law enforcement.

It is to be hoped that under this new act the violations of the Medical Act will cease and the present violators will be speedily convicted and put out of business.

Correspondence

Cassopolis, Mich., April 20, 1921.

Editor The Journal:

Can you answer this question?

A patient of mine whom I have repeatedly advised to have an operation for appendicitis has, during my absence, visited another physician in another town for the purpose of confirming the diagnosis and is advised to have a number of X-ray plates taken, which was done. The diagnosis following was appendicitis and ulcer or ulcers of stomach and a gastro enterostomy advised in addition to the appendectomy. These pictures—six in all—were taken at the hospital and the patient paid the regular fee of $30—$5 each.

On my return the patient called and advised me what had been done. Not claiming to be expert in the interpretation of X-ray plates I advised the patient to get them and submit same to Dr. Crane at Kalamazoo, thinking perhaps this course would save the patient time and expense.

The hospital authorities positively refused to deliver the plates to patient, although it was promised they would be returned to the hospital again later in the day, and in spite of the fact that these authorities told me yesterday on the phone that patient could get same today on the way to the train.

Question—In whom does the ownership of these plates lie? What does the patient get for his $30? If a patient wants the advice of several physicians or surgeons before submitting to a serious operation does it, of necessity, mean that he must have a new set of plates taken by each

individual consulted; suffering silently the unnecessary expense and delay.

I have had plates shipped to me several times by Chicago hospitals and this is my first experience with this kind of a game.

Yours very truly

E. M. Cunningham.

Houghton, Mich., May 2, 1921.

Dr. F. C. Warnshuis,
Sec'y.-Editor, Mich. State Med. Society,
Grand Rapids, Mich.

Dear Doctor:—

Immediately on receipt of your telegram concerning the chiropractic bill, we of the Houghton County Medical Society got busy. We acted collectively and individually in sending telegrams to our Senators. To the chairman of our legislative committee, Dr. J. W. Moore, once a member of the House of Representatives, belongs a great deal of credit in bringing influence to bear on the Senate.

We were fortunate in securing the co-operation of the Lions Club of Calumet, the Rotary Clubs of Houghton and Hancock; the Dental Society; the Druggists and a score of other influential men of Houghton county. We feel that our Senators and Representatives on April 25, knew that Houghton county was still on the map, and that there were a few live wires left who had not departed when the mines closed. I am certain other counties did likewise.

Very truly yours,

A. D. Aldrich.

HINTS ON ANTRUM OF HIGHMORE AFFECTION.

(With Relation to Abscessed Roots.)

A few important diagnostic points elicited by the history and X-ray will readily differentiate and clinch the diagnosis between these two conditions which simulate each other and in the past have caused a confusion as to just the exact condition which presents symptoms.

Antrum of Highmore and its affection will first be considered:

Non-purulent Inflammation:

Cause—Closure of ostium maxillare with absorption of air causing congestion of blood vessels and exudate.

Symptoms—1. Pain, local or reflex to eye, head, teeth or ear. 2. Intermittent mucous discharge.

Diagnosis—1. Transillumination, and X-ray. 2. Exploration by puncture, or incision through naso-antral wall, and wash, aspirate or blow out cavity with compressed air.

Treatment—Cleanse and medicate, provide ventilation. Remove inferior turbinate by submucous resection thus avoiding a dry nose following operation by leaving a covering of mucous membrane.

Prognosis—Good under appropriate treatment, ventilation and cleansing most important. If due to dental origin, correct dental region and treat antrum.

Empyemia of Antrum:

Cause—May be either nasal or dental origin. If due to dental cause usually an abscess of root is present. When of nasal cause it may be a primary infection or secondary, to a non-purulent condition. It may be due to drainage into antrum from higher cavities.

Symptoms—1. May be slight or severe, local or reflex in eye, teeth or ear. 2. Discharge may be constant or intermittent, frequent in morning. 3 Patient occasionally is conscious of odor. 4. Depression is frequent, especially in the chronic cases.

Diagnosis—Transillumination is fairly reliable, X-ray clinches diagnosis.

Treatment—If due to dental origin, first correct dental condition and treat antrum as outlined. Surgically there are four methods: 1. Through the root of the tooth if due to abscessed root, only permissable mode of treatment, if due to dental cause, later close dental opening into antrum. Remove tooth and drill or bore an opening up through into antrum. This form of procedure is tedious and delays cure. 2. The canine fossa route is usually selected by the general surgeon, this is not thorough unless the operation is carried through the naso-antral wall. This latter procedure is known as the Caldwell-Luc operation. 3. Middle neatus route is proper for diagnosis, for treatment of acute cases and should be followed in chronic cases where it is often successful. Incise wall and blow or wash out cavity and medicate with Argyrol or Camenthol. 4. Inferior meatus route is procedure for the persistent, chronic cases. A submucous resection of inferior turbinate aids materially in the cleaning up of the condition. The after-treatment blow-out and medicate antrum.

Prognosis—Good if free persistent nasal drainage is provided in the chronic cases and ventilation and cleansing of cavity of antrum in the treatment of acute cases. It is unnecessary to state that the dental factor must be attended to, to remove underlying cause, if of dental origin.

I must acknowledge my teachers in writing this paper, Dr. A. H. Andrews of Chicago, whose

methods are unexcelled in the West and Dr. Hutchinson of New York City, whose operative results are splendid. If this paper enables my fellow practitioners to approach this problem with a desire to seek the cause of this condition, it will have served its purpose.

Harold F. Ohrt, M.D.,
Detroit, Mich.

State News Notes

COLLECTIONS.

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Rerefence any Bank in Battle Creek.

The annual report of Shurly Head and Chest Hospital, 62 Adams Avenue West, has just been completed. This interesting report gives a record of 2612 patients admitted and treated in the hospital during the year 1920 and a total number of 1843 operations performed. 1337 of the operations were performed by the staff of Shurly Hospital and 506 by outside physicians who are not on the attending staff. This shows that more than one-third of the work is done as an "open" hospital. In order to meet the growing demand for more operating room facilities, both in the hospital and in the city, a second operating room was elaborately equipped and opened to the public in September. The bed capacity was also increased by twenty-five beds, making a total capacity of 67 beds.

In addition to the Departments of Medicine and Surgery, Shurly Hospital provides a Department of Dental and Oral Surgery, through which 928 additional patients passed last year, of whom 537 were examined radiographically and complete diagnostic findings made of the condition of the oral cavity. There are also departments of the Eye and of the Ear, Nose and Throat. The hospital is equipped with clinical laboratory service and a splendid X-ray department especially devoted to the head and chest.

An interesting feature of last year's work was the arrangement with the United States Public Health Service whereby ex-service men became beneficiaries of the various departments of the hospital. These Federal patients afflicted with chest disease were referred to Shurly Hospital by the Government for observation, final diagnosis and, if necessary, operation. Thirty hospital beds were reserved for this purpose and were continuously occupied. 313 men were treated during the last three months of the year.

At the meeting of the physicians, dentists and pharmacists, held May 11, 1921, in the Detroit Board of Commerce, Doctor J. A. O'Reilly of Brooklyn gave a history of the attempts to introduce health insurance and other medical schisms in New York and New Jersey and advocated the formation of a political guild with membership from medical, dental and pharmaceutical societies. Upon motion of Doctor J. B. Kennedy a committee of one member of each of the above societies was appointed to take into consideration the establishing of such a guild. The members of this committee are Doctor Frank B. Walker. Doctor B. R East (dentist), and Mr. Oscar Gorenflo. From the attitude of the meeting, it is not expected that this guild will materialize. However Dr. B. R. O'Reilly gave a most interesting and instructive lecture upon a subject essentially interesting to the several professions at the present time.

A bill establishing a Federal Department of Public Welfare, was introduced in both the House and Senate May 5, 1921. This bill was prepared by Brigadier-General Sawyer and Senator Kenyon. It abolishes the offices of Director of War Risk Insurance, Surgeon-General of the Public Health Service, Commissioner of Education, and the Board of Managers of the National Home for Disabled Volunteer Soldiers. The bill provides for a Secretary of Public Welfare, to be appointed by the President, and four distinct divisions, each under an Assistant Secretary of Public Welfare; (1) Education, (2) Public Welfare (different activities of the Government with respect to public health; (3) Social Service, and (4) Veteran Service (different activities of Government dealing in any way with American War Veterans.)

A joint meeting of the Legislative Committees of the Wayne County Medical Society, the Detroit Dental Society, and the Detroit Retail Druggists Association was held May 16, 1921, in the Medical Building. The following resolution was adopted:

Resolved—That this committee recommend to the various county, district and state societies representing the physicians, druggists and dentists that a triple alliance of the three professions be formed for educational purposes.

Doctor Frank B. Walker (Chairman)
Doctor B. R. East
Mr. Oscar Gorenflo.

On May 16, 1921, the Wayne County Medical Society instructed its delegates to support this resolution in the House of Delegates of the Michigan State Medical Society.

One of the bills, passed by the last Legislature, will enable counties to establish their own homes for the feeble-minded and to collect from the State the money which would be needed to care for the same number of inmates in state institutions. Judge Hulburt of Detroit and the Board of Supervisors of Wayne County urged the passage of this measure because the State institutions for the feeble-minded were so over crowded. It is believed that a movement to establish a Wayne County Home for such unfortunates will be begun soon.

The motorized laboratory of the Michigan Department of Health will be put into commission again this year. Much was accomplished in 1920. Last summer 131 resorts were visited; 45 per cent. of the water supplies were found unsafe; half of the resorts had no adequate method of garbage disposal, and 47 per cent. of the milk was unsatisfactory. The summer tourists need abundant supplies of good food, clean milk, pure water and sanitary surroundings. The Department of Health is endeavoring to give them just that.

The Battle Creek Chamber of Commerce gives yearly a testimonial banquet to one of the city's doers. The latter part of April Doctor J. H. Kellogg was the one chosen for this honor. The banquet was held in the Post Tavern and while there was no coffee, meat, condiment or after dinner smokes, the 300 guests are said to have enjoyed the "feast of reason." Doctor W. S. Shipp was one of the speakers. "Chew and Eschew" (Dr. Kellogg's doctrine.)

The Detroit Receiving Hospital has invited the medical profession to attend their clinics and ward walks with their visiting staff. Doctor B. C. Lockwood and Doctor W. D. Mayer give those on medicine, Doctor H. Reye on neurology, Doctor D. R. Clark on psychiatry, Doctor R. Parmeter on Surgery, Doctor F. C. Kidner on orthopedic surgery, Doctor G. Kamperman on gynecology, Doctor H. W. Paggemeyer on genito-urinary diseases, Doctors R. H. Pino and Schultz on larynology, and Doctor E. G. Martin on proctology.

When the proposed Detroit Municipal Hospital is completed, Detroit will have about 5 beds for every 1,000 population. The new hospital will be an "open" institution and any physician who is a reputable practitioner, will have the privileges of the hospital. In addition to caring for the indigent, the new hospital will take care of the middle class at a nominal cost. Thus a serious gap in the city' hospital facilities will be filled and the benefit will accrue to the citizens of moderate means.

Under the plea of charges for professional services, it is rumored that certain attorneys (members of the Legislature) have received large fees for drawing up bills. Subsequently they have introduced and have steered these bills through the Legislature. If these reports, so frequently heard during this session, have any substantial evidence to support them, then a Grand Jury in or near Lansing is indicated.

The Surgical Section of the Wayne County Medical Society entertained two out of town guests, April 25, 1921. Doctor Lower of Cleveland read a paper on "Diagnosis and Treatment of Tumors of the Urinary Bladder" which was illustrated by lantern slides. Doctor Thomas Horder of London, England, spoke on "Some of the Present Day Medical Problems in England." Preceding the meeting a subscription dinner was tendered Doctors Lower and Horder.

At the annual meeting of the Michigan Homeopathic Medical Society, May 12, 1921, Doctor F. B. McMullen of Detroit was elected President Doctor C. E. Beeman of Grand Rapids and Doctor C. B. Stoufflin of Ann Arbor were elected Vice-Presidents and Doctor M. A. Darling of Detroit was elected Secretary-Treasurer.

The new directory of the Detroit Athletic Club shows 112 physicians who are resident members and 2 physicians who are non-resident members. Doctor W. E. Keane and Doctor Edwin S. Sherrill are the only physicians who are charter members and Doctor J. W. Inches is the only physician who has been a director.

The members of the O. and O. Club were guests of Doctor Carl McClellan May 4, 1921, at the Detroit Golf Club. A number played golf in the afternoon. Dinner was served at 6:30 P. M., following which Doctor McClelland read a paper on "The Present Status of Sympathetic Ophthalmia," with the report of a case.

The Post-Graduate School of the Woman's Hospital of Detroit announced May 1, 1921 that Doctor H. B. Schmidt will give a series of twenty

lectures on medical conditions allied to obstetrics and gynecology, that this summer a course on surgical anatomy will be given, that Doctor Davis will repeat his lectures this fall, and that additional courses in obstetrics and gynecology will be given.

The Detroit Hospital Council invited the public to inspect the following hospitals on the afternoon of May 12, 1921 (Hospital Day)—Harper, Grace, Herman Kiefer, Providence, Highland Park, Children's Free, Dunbar, Ford, Michigan Mutual, St. Mary's, Delray Industrial, Samaritan, Receiving, Evangelical and Shurly.

Doctor J. Newton Roe, formerly Dean, Secretary and Everything in the Chicago College of Medicine and Surgery, was convicted in Judge Landis Court, Chicago, of conspiracy and violation of the Volstead Act by a jury. Maximum penalties for the above offenses are ten years in prison and $1,000 in fines.

The program of the May 9 meeting of the Medical Section of the Wayne County Medical Society was in charge of the Staff of Providence Hospital. Doctor Thomas White read a paper on "Thyroid Pre Pubitas," Doctor William P. Woodruff on "Relation of Tonsillar Infection to Thyroiditis," Doctor A. S. DeWitt on "The Medical Management of Thyroid Disease," and Doctor James E. Davis on "Thyroid Pathology."

The Detroit hospital training schools for nurses joined in community commencement exercises for the fourth year May 10, 1921. 136 young women of the classes of Providence (22), St. Mary's (10), Children's (8), Grace (21), Harper (59) Samaritan (6), Woman's (10) and were graduated.

Doctors J. M. Robb and W. D. Barrett of Detroit, gave a dinner May 4, 1921 in honor of Colonel Angus McLean and Doctor Don M. Campbell at the Essex Country Club. The guests included 20 Windsor physicians.

Doctor John Knox Gailey, who has removed to California, was made an Honor Member of the Wayne County Medical Society, April 18, 1921. The Doctor practiced medicine in Detroit for nearly 40 years.

The Kellogg Food Company of which Doctor J. H. Kellogg is President, was ordered May 5, 1921, by Judge North to change its corporation name and to hand over all orders received by the Kellogg Food Company through. confusion of names to the Kellogg Toasted Corn Flake Company.

The Detroit Branch of the American Bacteriological Society held its annual meeting May 11, 1921 in the Medical Building, Detroit. Doctor R. W. Pryer was elected President and Doctor H. L. Clark Secretary-Treasurer. Doctor Fred G. Novy of Ann Arbor gave the address.

Doctor J. B. Kennedy of Detroit occupied the pulpit of St. Philip and St. Stephen Episcopal Church on Sunday evening, May 1, 1921 and delivered an address on "The Scientific Development of Medicine and Surgery."

Doctor J. J. O'Reilly of Brooklyn made an impromptu speech before the Medical Section of the Wayne County Medical Society, May 9, 1921, in support of the "guild" movement (federating the medical, dental and pharmaceutical professions) for the protection of the public.

The Detroit Otolaryngological Society met May 16, 1921 in the Medical Building, Detroit. Following the dinner Doctor P. M. Hickey gave a "Preliminary Report on the Use of the X-ray in Treatment of Tonsil and Adenoid Disease and Diphtheria Carriers."

Doctor C. D. Brooks was quoted in the April issue as speaking in favor of the Closed Hospital Bill before the Senate Health Committee. We beg leave to state that this is an error as Doctor Brooks did not speak in favor of this bill.

The regular monthly meeting of the staff of Grace Hospital, Detroit, was held April 19, 1921. Doctor S. Wilson read a paper on "Encelphalitis Lethargica" and Doctor A. E. Schiller, on "The Use of the Violet Ray in the Treatment of Diseases of the Skin."

The nurses of Grace Hospital Training School Detroit gave a farewell reception April 27, 1921, in honor of Misses Laura Meader and May Still who left the early part of May for Boston where Miss Still was married to Doctor R. C. Treves and Miss Meader to Mr. J. L. Hult.

Doctor James W. Inches was a member of the General Committee which arranged the dinner given in honor of Secretary of the Navy, Mr. Edwin Denby, by the Detroit Board of Commerce April 30, 1921.

At the annual meeting of the Wayne County Medical Society May 16, 1921, the following officers were elected: Doctor James E. Davis, President; Doctor J. H. Dempster, Vice-President; Doctor B. C. Lockwood, Secretary; and Doctor A. D. Holmes, Trustee.

Doctor Samuel Lloyd of New York City read a paper on "Surgery of the Lung" May 16, 1921, before the Wayne County Medical Society. Doctors Brooks, F. B. Walker, Tyson, Wolff, Hickey and Rich discussed it.

At the general meeting of the Wayne County Medical Society May 2, 1921 Doctor C. Levantis read a paper on "A New Theory of Sero-Therapy" and Mr. G. S. Gillberg on "Medical Gymnastics and Passive Exercises."

Doctor Albert H. Garvin, Supt. of the Detroit Municipal Tuberculosis Sanatorium at Northville, outlined the work of the Department of Health April 28, 1921, at the luncheon of the Cornell Alumni of Detroit.

On May 2, 1921, the Wayne County Medical Society voted their approval and support of School Week (May 9-13, 1921.) This week is an effort on the part of the Board of Education to bring the school and the parents nearer together.

The Detroit Academy of Medicine met in the offices of Doctor B. R. Shurly, May 10, 1921. Doctor Carl S. Oakman, Corresponding Fellow of the Academy, read a paper on "A Physician's Experiences in Business."

On May 10, 1921 Doctor B. R. Shurly talked on "The Reasons for not being a Doctor" and Doctor J. B. Kennedy on "Medicine as a Profession" before the Detroit Junior College in their "Find Yourself Week."

Doctors A. L. Jacoby of Detroit and A. M. Barrett of Ann Arbor appear on the program of the National Conference of Social Work, to be held in Milwaukee, June 22-29, 1921.

On May 2, 1921, Doctor Charles H. O'Neil was named by the Flint Council a member of the Flint Board of Health. He succeeds Doctor Walter H. Winchester.

The Michigan State Board of Registration in Medicine will hold examinations in Ann Arbor on June 14, 15 and 16 and in Detroit on June 20, 21 and 22, 1921.

On May 9, 1921, the Medical Section of the Wayne County Medical Society elected Doctor H. B. Schmidt, Chairman and Doctor T. B. Marsden, Secretary.

Doctor R. W. Gillman returned to Detroit April 29, 1921 after spending a month with Mr. and Mrs. Theodore Fletcher at their winter home in West Paget, Bermuda.

Mrs. Carstens (widow of Doctor J. H. Carstens) and daughter, Miss Mildred Carstens, returned to Detroit the middle of May. They spent the winter traveling in California.

Miss Edwina Helen Kiefer, daughter of Doctor and Mrs. Guy L. Kiefer of Detroit, will be married June 4, 1921, to Mr. Homer Calvin Bayliss, of Cleveland.

There are 31 National Red Cross Societies engaged in a world wide crusade for the improvement of the health, the prevention of disease, and the mitigation of suffering.

Doctor and Mrs. Ira G. Downer of Detroit announced the birth of a daughter, Jean Alice, April 30, 1921.

Doctor and Mrs. R. E. Mercer returned to Detroit May 1, 1921 after a visit of several months in the Southwest.

Mrs. J. W. Richardson, mother of Doctor A. L. Richardson, of Detroit, died May 12, 1921.

The Farrand Training School (Harper Hospital, Detroit) graduated 59 nurses, May 10, 1921.

Do not fail to attend your Society meetings regularly. You need them as much as the other fellow.

Read the advertisements. It will profit you.

Do you believe in reciprocity? Patronize your advertisers.

Doctor and Mrs. W. R. Chittick of Detroit will open their summer home at Kewahdin Beach early in June.

The Homeopathic Medical Society of the State of Michigan held its 52nd Annual Session in Grand Rapids, May 11 and 12, 1921.

Doctor Robert MacKenzie of Detroit was married May 19, 1921 to Miss Ethel L. Sweet of the same city.

During the first four months of 1921 there were 3,745 deaths in Detroit against 6,725 for the corresponding period of 1920.

Doctor Alice M. DeForest returned to Detroit May 1, 1921, after a several month's trip to the Hawaiian Islands and Southern California.

Admiral William C. Braisted, U. S. Navy, retired, has been offered the Presidency of the Philadelphia College of Pharmacy.

Doctor V. C. Vaughan of Ann Arbor recently accepted the Chairmanship of the Medical Section of the National Research Council.

Doctor and Mrs. Lewis S. Potter of Detroit announced the birth of a son, George Edward, May 11, 1921.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. Secretaries are urged to send in these reports promptly

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BAY COUNTY

A regular meeting of the Bay County Medical Society was held at the Board of Commerce Club, April 25th. Routine business was transacted and committee reports heard. The Society endorsed the action of protesting against the Chiropractic bill before the Legislature but were at a loss to understand how the bill was ever allowed to pass both houses so overwhelmingly the first time.

Dr. Grosjean of the local society then read a paper on, "Pelvic Inflammatory Disease." The paper was sharply discussed.

Monday evening, May 2nd, the Society met in special session at the Board of Commerce Club and listened to a most elevating and inspiring talk on "A Personal Inventory" by Prof. Henderson of La Salle University. This was an open meeting and members' wives were in attendance. A light banquet followed the lecture. The talk, while not in any sense medical, was thoroughly enjoyed and the forcefulness of Dr. Henderson's delivery was a rare treat.

L. Fernald Foster, Secretary.

GENESEE COUNTY

The clinical section of the Genesee County Medical Society met April 21, 1921, President Orr presiding. Dr. Max Burnell read a paper on "Osteogenesis Imperfecta." He reported a case showing multiple intrauterine fractures and showed the X-ray plates. Dr. W. H. Marshall reported a case of Aortic Aneurysm that had ruptured into the pleural cavity and showed the pathological specimen, with sections from the aneurysmal wall. Dr. Leo Himmelberger, who has had a large experience with experimental Botulism read an interesting review of what we now know of this disease.

The Genesee County Medical Society met for noon luncheon, Wednesday April 27, 1921, President Orr presiding. Several interesting volumes from the library of the late Dr. Locy, of Davison have been added to our library. A communication from Mayor Atwood asking the society to recommend a doctor for position on the Board of Health was read. Dr. C. H. O'Neil was the choice of the society. Dr. H. M. Rich of Detroit spoke on "Present Status of Our Knowledge of Bronchial Asthma." He outlined the advance of our knowledge from 10 years ago when an authority said that Asthma "was original sin of the respiratory centers," to today when experimental and clinical facts have shown it to be an anaphylaxis or allergy. He outlined his methods of discovering the offending protein and reported many interesting cases illustrating the methods of treatment.

W. H. Marshall, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The Gratiot-Isabella-Clare County Medical Society held their May meeting in Brainerd Hospital in Alma, Thursday, May 12. We had Doctor Merrell Wells of Grand Rapids with us to talk on Encephalitis Lethargica. The Doctor talked from notes, and took up each part of the subject systematically, giving the epidemiology, etiology, symptoms, pathology, diagnosis and treatment.

Doctor Wells always covers a subject thoroughly and this was not an exception. He was given a vote of thanks.

E. M. Highfield, Secretary.

HILLSDALE COUNTY

The regular quarterly meeting of the Hillsdale Couny Medical Society was held at the Court House, Hillsdale, on Tuesday, April 26. 1921, President, Dr. T. H. E. Bell, in the chair.

Dr. W. J. V. Deacon of the State Department of Health, addressed the Society on "Public Health and Public Welfare," calling attention to the work of the Department in arresting and controlling outbreaks of epidemics of contagious diseases and the good work of the laboratory department in its bacteriological and pathological work.

Discussion by Dr. A. G. Doty, Health Officer of Hillsdale City, and Dr. G. R. Hanke of Waldron, followed by general discussion by Dr. Green who characterized the work of the Department of Health as a "Public Education," Dr. Whelan who thought the laity should be called upon to aid in the work of Education and Dr. Stoner who called attention to the comparatively large proportion of tuberculous suspects at the public clinics at Jonesville some years since that were pronounced "positive" that have never developed. This illustrates the danger of branding cases of suspected tuberculosis as positive on the strength of a single physical examination however expert.

Dr. W. H. Sawyer of Hillsdale then read a paper on "Our experiences and Limitations with the X-ray." He illustrated his paper with a large number of radiograms of various fractures and other pathological conditions showing conclusively the great value of this line of work in the county. Dr. Sawyer's paper was given close attention by the members present and a general discussion followed by Drs. Deaconer, Stoner, Whelan and others.

One new member, Dr. Jas. M. Barnes of Waldron was received into the Society and the name of Dr. Yeagley, also of Waldron, was proposed for membership, to be voted upon at next meeting.

D. W. Fenton, Secretary.

Book Reviews

PRACTICAL CHEMICAL ANALYSIS OF BLOOD: Victor C. Meyers, M. A., Ph.D., Professor of Pathological Chemistry in the New York Post-Graduate Medical School and Hospital. Price, $3.00. C. V. Mosby Company, St. Louis.

This book, the most recent addition to the new field of blood chemistry, is of value to the internist and surgeon as it indicates when and why certain blood chemical analyses should be made. A single method only for each determination has been outlined, each based on the writer's several years of experience in this work. Rapid advances have been made in recent years in the field of blood chemistry and this excellent book sets forth in a very clear and comprehensive way the value of these examinations in diagnosis and prognosis.

SURGERY OF THE UPPER ABDOMEN. John B. Deaver, M.D., and A. P. C. Ashhurst, M.D. Cloth, illustrated. Price $14.00. P. Blakesston's Son & Co., Philadelphia.

This is the second edition of this representative text. One knowing the standing of these authors and the place they have attained in American Surgery realizes the authoritativeness of this text. It meets up to every expectation. It is complete in every detail. Specific in diagnostic and operative details. No surgeon can afford not to be in possession of this text and to refer to it frequently. It is acknowledged as the last word in surgery of the upper abdomen.

EYE, EAR, NOSE AND THROAT NURSING. By A. E. Davis, M.D., and Beaman Douglas, M.D. Cloth. Price $2.50. F. A. Davis Co., Philadelphia.

Here is a splendid nursing guide for those who attend the patients of the specialties mentioned in the title. It is a comprehensive, detailed text that will enable the nurse to properly observe the proper nursing care of this group of patients. We commend it very cordially.

RATIONAL TREATMENT OF PULMONARY TUBERCULOSIS. By Charles Sabourin, M.D. Cloth. Price $3.50. F. A. Davis Co., Philadelphia.

This is the authorized translation of the sixth

French edition. It is a most detailed presentation of the rational treatment of this disease. We cannot commend it too highly. We are indeed indebted to the publishers for making this text available in the English language.

NEW POCKET MEDICAL FORMULARY. Wm. Edward Fitch, M.D. Third Edition. F. A. Davis Co. Price $2.50.

An alphabetical order of diseases with such pharmaceutical combinations as have been proven useful in their treatment. A valuable collection of potent prescriptions.

HANDBOOK OF ELECTROTHERAPY. Burton B. Grover, M.D. Cloth. Price $4.00. F. A. Davis Co., Philadelphia.

A desirable text setting forth the principles of electrotherapy. One must need just such a text if he is going to utilize to full advantage the benefits obtainable from electrotherapy.

A COMPENDIUM OF PHYSIOLOGY. A. P. Brubaker, M.D. 15th Edition. P. Blakeston's Son & Co. Price $2.00.

This 15th edition of this compendium brings it up to date with recent advancements. It presents the essential facts of physiology.

Miscellany

THE CAUSES AND TREATMENT OF THE CONDITIONS UNDERLYING HIGH BLOOD PRESSURE.

Conclusions:

1. High blood pressure appears to depend chiefly upon a a narrowing of the lumina of the arterioles in the precapillary areas.

2. The arteriolar narrowing is at first functional, due to hypertonus of the arteriolar musculature, though later it is also partly organic due to arteriolar sclerosis.

3. The actual causes of the persistent arteriolar hypertonus and of the organic arteriolar sclerosis are as yet unknown, though many ingenious hypotheses have been invented in explanation. The relations to chronic renal disease, to atherosclerosis in general, to exogenous and endogenous poisons, to infectious processes, to the 'wear and tear' of life, to abnormal metabolic states, to endocrine disorders, and to certain types of constitutional make-up, have been much discussed.

4. The different types of chronic arterial hypertension would seem to be closely related to one another, probably representing different stages in the development of one and the same fundamental process, a process that may, however, advance with variable rapidity and with variable associated involvements of cardio-vascular, renal, cerebral and other structures in different cases.

5. When recognized early the process may often be wholly arrested; or it may be so delayed in its progress that the patient may live comfortably for years, sometimes even for decades, before troublesome symptoms or dangerous complications occur.

6. In the late stages of the process much can be done to ameliorate symptoms and to ward off dangers, though in the actual end-stages both patients and physicians do better bravely to face reality, accepting the inevitable, rather than through wishful thinking to increase suffering by resort to a meddlesome therapy that attempts the impossible.

7. To prevent the development of the pathological process underlying high blood pressure, one should first 'get himself well born,' without 'constitutional inferiorities,' and then should avoid intoxications and infections and lead a life without too much wear and tear. He should satisfy his physical, economic, social, educational, aethetic and ethical desires in a well-balanced way, so ordering his activities that he will secure the highest self-realization possible in the service of the society in which he lives.

8. The cultivation of the sense of proportion in the conduct of life, 'avoid extremes,' will go far toward preventing the onset of a malady that is all too prone to develop in modern civilization, cuts short in the early afternoon lives that, rationally led, might experience work and joy until the evening.

(Ohio State Medical Journal, October, 1920, Lewellys F. Barker).

SOME PRESENT DAY MEDICAL PROBLEMS IN ENGLAND.

Sir Thomas Horder of London.

(Read before the Surgical Section, Wayne County Medical Society, April 25, 1921).

It is about time that the politician realized that he is not the best judge of what constitutes efficient medical service and that he can not alone settle this question. Without doubt the Englishman is in a worse position to-day than when the health insurance act was passed.

This insurance act gave rise to so many alarms that many associations of one sort or another were formed, ostensibly for the purpose of protecting physicians interests.

Among these the following might be mentioned: (1) The Medical-Political Union which is a trades union and which reserves the right to call out its members on a strike; (2) The National Medical Union which aims to let the medical man alone to follow his chosen course; (3) Innumerable associations of public health officers, of women physicians, of medico-psychologists, of heads of tuberculosis hospitals and many others; and (4) The Federation of medical and allied societies which includes representatives of every branch of the profession and of some lay societies and which works out its problems through the medium of three co-operating councils, one of which is medical.

The British Medical Association has lost much ground and prestige through its failure to stop the insurance act. It has refused to join the Federation. It is perhaps better that it should retain the old academic and scholarly atmosphere, removed from the realm of politics.

No physician is compelled to serve on the panel. Some who were panel men at the beginning, have given it up and some who did not like it at first have joined the panels later. Some are panel men by nature and some are not.

There are other forms of state medicine. You have them in America, tuberculosis, venereal, child welfare and anti-natal clinics. No one ever questions these.

There is a better system than all these. . It is known as the 'Dawson Scheme.' First there will be a domiciliary service, hundreds of little health centers scattered through the community. Second there will be the primary health centers, nothing more than fairly large hospitals with staffs able to care for a number of the smaller centers in the neighborhood and open to the general practitioners; Thirdly, There will be the secondary health center or larger hospital closely connected with a university medical school, directly responsible for a number of primary health centers. This scheme has not yet been put through because Britain has no money.

The difficulty in America is that she has failed to link up the hospital and the public clinics with the medical education program as closely as has Great Britain. Detroit's splendid hospitals and possible clinical material should be made more available to students and their instructors in the medical schools.

VITAMINES (Conclusions).

1. There are at least three vitamines, fat soluble A, water soluble B, and water soluble C.

2. All of these are necessary to growth in children and to ward off diseases from malnutrition (both in children and in adults.)

3. All three types are contained in milk and green vegetables so that whoever drinks a couple of large glasses of milk and eats a good salad daily need not worry about his diet as far as the vitamines are concerned.

4. Fat soluble A is predominent in cod-liver oil, butter fat, yolk of egg and green leaves.

5. Children must have fat soluble A for growth and to avoid rickets and xerophthalmia.

6. Water soluble B is found in outer hulls of grain, milk and in yeast.

7. The absence of water soluble B in the diet is sometimes shown by acne, boils and in extreme cases by beriberi.

8. Water soluble B is believed to be a stimulant to the action of some of the endocrine glands.

9. Water soluble C is an antiscorbutic, is easily destroyed by heat and drying except in acid medium.

10. Water soluble C is found in milk, oranges, cabbage and tomatoes.

11. Owing to the acid nature of tomatoes the can product is also rich in water soluble C.

12. It is better to buy our vitamines of the green grocer than of the apothecary.

(Harper's Monthly Magazine, March 1921, Ellwood Hendrick).